CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, September 26, 1907.

CONTENTS.

CONSTRUCTION NEWS:
Plans and Specifications on File..... 99
List of Contracts Pending..... 99
Railways..... 99
Electric Railways 100
Light and Power Plants..... 100
Bridges..... 101
Buildings..... 101
Water Supply and Irrigation..... 102
Sewerage..... 103
Garbage Disposal 103
Streets and Roads..... 103
Manufacturing Plants 104
Miscellaneous Contracts..... 105
U. S. Possessions and Cuba..... 105
Foreign Contracts 105
CIVIL SERVCE EXAMINATIONS..... 106
INDUSTRIAL NOTES 106
TRADE PUBLICATIONS 106
PROPOSALS 106

CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

(denotes that this work is advertised in Engineering News.)*

The following Plans (P.) and Specifications (S.) are on file and may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York.

10- 1*Purification works, Cadillac, Mich. .....(P. & S.) 9-19
10- 3*Jetties, Cold Spring, N. J. (P. &S.) 9-12
10- 5*Locks and dams, Mobile, Ala., (P. & S.) 8- 8
10- 5 Heating plant, New Orleans, La. .....(S.) 9-12
10- 7*Cement making machinery, Los Angeles, Cal.....(S.) 9-19
11- 9 Power plant, Las Animas, Colo., ... (S.) 9-26

LIST OF CONTRACTS PENDING.

LIGHT, HEAT AND POWER PLANTS.

9-28 Light plant, Manassas, Va..... 9-19
9-30*Lighting fix., West Point, N.Y.. 9- 5
9-30 Lighting plant, Rochester, N. Y.. 9- 5
9-30 Boiler, Rochester, N. Y..... 9- 5
9-30*Generating sets, N. London, Conn. 9- 5
9-30 Elec. plant, Revelstoke, B. C..... 9- 5
9-30 Equipment, New York, N. Y..... 9-26
10- 1*Elec. plant, Winnepeg, Man..... 8-29
10- 1*Elec. equip., etc., Winnipeg, Man. 8-29
10- 4 Generator, etc., Jacksonville, Fla. 9- 5
10- 5 Heating plant, New Orleans, La.. 9-12
10- 5 Lighting plant, Crawfordsville, Ind. 9-26
10-15 Lighting, Savannah, Ga. 9-26
11- 1*Gas & elec. light, Seymour, Ind... 9-12
11- 9 Power plant, Las Animas, Colo.. 9-26
11-15 Lighting, Charleston, S. C..... 9-12

BRIDGES.

9-27 Bridge, etc., Denver, Colo..... 9-19
9-27 Bridge, Beatrice, Neb. 9-26
9-27 Bridge, Iola, Colo. 9-26
9-28 Bridge, Athens, O..... 9-19
9-28 Bridge, Point Marion, Pa..... 9-19
9-30 Bridge, Lancaster, Pa..... 9-19
10- 1 Bridges, Greenfield, Ind..... 9-26
10- 2 Bridge, Jefferson, Ohio..... 9-19
10- 3*Bridge, Fergus Falls, Minn.... 9-12
10- 3 Bridges, Evansville, Ind..... 9-26
10- 3 Bridge, New York, N. Y..... 9-26
10- 5 Bridges, etc., Indianapolis, Ind... 9-26
10- 5 Bridges, Crawfordsville, Ind..... 9-19
10- 7 Bridges, Vicksburg, Miss..... 9-19
10- 7 Bridge, Salem, Ind..... 9-19
10- 7 Reflooring, Niles, Ohio 9-12
10- 7 Bridges, etc., St. Clairsville, O... 9-26
10- 7 Bridge, Tipton, Ind..... 9-26
10- 7 Bridge work, Atchison, Kan..... 9-26
10- 8 Bridge, Vicksburg, Miss. 9-26
10- 8 Bridge, Hamilton, O. 9-26
10- 8 Bridges, Fargo, N. Dak. 9-26
10- 8 Bridge, Delphi, Ind..... 9-19
10-14 Bridge, Bellefontaine, Ohio..... 9-19
10-14 Superstr., Fredericton, N. B..... 9-12
10-14*Bridge, Los Angeles, Cal..... 9- 5
10-14 Abutments, Toledo, O. 9-26
10-15 Bridge, Dunrea, Man..... 8-29
11-15*Bridges, Glendive, Mont..... 9-26

BUILDINGS.

9-27*Post-office, Hamilton, Ohio..... 9-19
9-27 Memorial, Pittsburg, Pa..... 9-12
9-28 Building, St. Louis, Mo..... 9-26
9-30*Pavilion, West Haverstraw, N. Y. 9-12
9-30*Post-office, Selma, Ala..... 8-22
9-30 Heating, etc., New York, N. Y. 9-26
10- 1 Y. M. C. A. Bldg., Indianapolis, Ind. 8-29
10- 1*Court-house, Eau Claire, Wis..... 8-29
10- 3*School, Bayonne, N. J..... 9- 5
10- 3 Court-house plans, La Moure, N. Dak. 8-15
10- 7 Post-office, Baltimore, Md..... 9- 5
10- 7 Armory, New York, N. Y..... 9-26
10-18 Post-office, Denver, Colo..... 9-26
10- 9 Roofing, Panama 9- 5
10-12*Hospital, Whipple Barracks, Ariz. 9-12
10-16 Plans, Green Bay, Wis..... 9- 5
10-16*Post-office, Springfield, Ohio.... 9-12
10-17*Post-office, Peoria, Ill..... 9- 5
10-21 Post-office, Des Moines, Iowa.... 9-12
10-30*Post-office, Atlanta, Ga..... 9-26
11- 1*Notice of plan competition, Porto Rico 9-26
11- 5 Plans, Houston, Tex..... 9-19

WATER-WORKS.

9-27 W.-Works, Wash., D. C..... 9-12
9-27 Drain, Boone, Iowa 9-19
9-27 W.-Works, Hesperus, Colo..... 9-19
9-27 Basin, etc., Madison, Wis..... 9-19
9-28 W.-Works, etc., Manassas, Va... 9- 5
9-30*Pipe, boilers, etc., Los Angeles, Cal. 8-29
9-30 Ditch, Memphis, Tenn..... 9-19
9-30 Reservoir, etc., Wilmington, Del. 9-19
9-30 Tower, etc., Detroit, Minn. 9-26
9-30 Ditches, Marinette, Wis..... 9-26
9-30 W.-Works, Mahnomen, Minn..... 9-26
9-30 Mains, Beaver City, Neb..... 9-26
10- 1 Pipe, etc., Garnett, Kan. 9-26
10- 1 Ditch, Onawa, Iowa 9-19
10- 1 Water main, Harrison, N. J..... 9-19
10- 5 Pumping machinery, Kewanee, Ill. 9-26
10- 5 Ditch, Centerville Station, Ill.... 9-26
10- 7*Water-works, Newton, Miss..... 9-26
10- 7*Reservoir, etc., Canon City, Colo.. 9-19
10- 8 Ditches, Muscatine, Iowa 9-19
10- 9 Pump-house, etc., Ft. Caswell, N. C..... 9-19
10- 9 Water-works, Fargo, N. Dak..... 9-26
10-10 Water-works, Primghar, Iowa.... 9-26
10-10*Tank, etc., Ft. Du Pont, Del.... 9-19
10-14 Water-works, Ashland, O. 9-26

SEWERS.

9-27*Sewers, etc., North Chicago, Ill.. 9-12
9-27 Disposal plant, Delaware, Ohio.. 9- 5
9-28 Sewers, Seattle, Wash..... 9-26
9-30 Sewer, Decatur, Ind. 9-26
9-30 Sewer, Cedar Rapids, Iowa..... 9-26
9-30 Sewers, etc., Drayton, N. Dak.... 9-26
9-30 Sewer, Oakland, Cal..... 9-26
9-30 Sewers, Fairfield, Cal..... 9- 5
9-30 Sewers, etc., Steubenville, Ohio... 9-12
9-30*Filters, Wilmington, Del..... 9-12
9-30 Sewers, etc., New York, N. Y... 9-19
9-30*Sewer, Washington, D. C..... 9-19
10- 1 Sewer, Cohoes, N. Y..... 9-19
10- 1*Sewers, Paducah, Ky..... 9- 5
10- 1 Disposal plant, Newark, N. Y... 9-12
10- 1*Purification wks., Cadillac, Mich. 9-12
10- 1 Sewer, Billings, Mont..... 9-12
10- 2 Sewers, Salem, Mass..... 9-26
10- 3 Sewers, North Braddock, Pa. 9-26
10- 3 Sewers, Jasper, Ala..... 9-19
10- 5*Sewers, Englewood, N. J..... 9-26
10- 7 Disposal plant, etc., Rome, N. Y. 9-26
10- 7 Sewers, Linton, Ind. 9-26
10-13 Sewer outlet, Ft. Dade, Fla..... 9-12
10-14*Sewers, Seattle, Wash..... 9-26
10-14*Sewers, Steubenville, Ohio 9-26
10-14 Sewers, etc., Carthage, Mo. 9-26
10-15*Sewers, etc., Chattanooga, Tenn.. 9-26

STREETS AND ROADS.

9-27 Paving, New York, N. Y..... 9-19
9-28 Roads, Greencastle, Ind..... 9-19
9-28 Roads, Vincennes, Ind..... 9-19
9-28 Grading, etc., Evansville, Ind.... 9-26
9-28 Paving, etc., Seattle, Wash. 9-26
9-30 Paving bricks, Portsmouth, Va.. 9-26
9-30 Paving, etc., New York, N. Y.. 9-26
10- 1 Road work, Ft. Adams, R. I..... 9-26
10- 1*Macadam, Durham, N. C..... 9-12
10- 1 Paving, etc., Billings, Mont..... 9-12
10- 1 Grading, etc., Ft. Sam Houston, Tex. 9-19
10- 2*Paving, Westfield, Mass..... 9-26
10- 2 Sidewalks, Madisonville, O..... 9-26
10- 2 Road, Spencer, Ind 9-26
10- 2 Paving, etc., New York, N. Y.... 9-26
10- 3 Road, Evansville, Ind. 9-26
10- 3 Walks, etc., New York, N. Y.... 9-26
10- 3 Road repair, New York, N. Y.... 9-26
10- 5*Paving, etc., Gary, Ind. 9-26
10- 5 Sidewalks, Brussels, Ill. 9-26
10- 5 Road work, Cleveland, Ohio..... 9-19
10- 7 Macadam, Hartford City, Ind.... 9-19
10- 7 Macadam, Decatur, Ind..... 9-19
10- 7*Paving, Hartford, Conn..... 9-26
10- 7 Roads, Salem, Ind. 9-26
10- 8 Paving, etc., St. Louis, Mo..... 9-26
10- 8 Roads, Portland, Ind. 9-26
10- 8 Road, Rockville, Ind. 9-26
10- 8 Roads, Martinsville, Ind. 9-26
10- 8 Road, Monticello, Ind. 9-26
10- 8 Road, Crawfordsville, Ind. 9-26
10- 8 Paving, etc., Palatka, Fla. 9-26
10- 8 Broken stone, etc., New York, N. Y. 9-26
10- 9 Roads, Bluffton, Ind. 9-26
10- 9 Paving, etc., New York, N. Y.... 9-26
10-12 Macadam, Ft. Wayne, Ind. 9-26
10-15 Paving, Ocala, Fla. 9-26
10-16*Paving plant, Ottawa, Ont..... 9-26
10-21 Road, Logansport, Ind. 9-26

MISCELLANEOUS.

9-27 Pier, Brooklyn, N. Y..... 9-19
9-27*Dredging, Cerro Gordo, Ill..... 9-12
9-28 Torpedo wharf, San Francisco, Cal. 9-12
9-30 Dredging, Boston, Mass..... 9-12
9-30*Dredge, Cincinnati, Ohio..... 9- 5
9-30*Dredge, Philadelphia, Pa..... 9- 5
9-30*Dredging, etc., New York, N. Y.. 9- 5
9-30*Searchlight outfit, Washington, D. C..... 8- 1
10- 1*Snag-boat, Mobile, Ala..... 9- 5
10- 1 Supplies, Washington, D. C. 9-26
10- 2 Walls, Wilkes-Barre, Pa..... 9-19
10- 3*Jetties, Cold Spring, N. J..... 9- 5
10- 3 Subway enlargement, Boston, Mass. 9-26
10- 5*Locks, dams, Mobile, Ala..... 9- 5
10- 5*Lock, dam, Vicksburg, Miss..... 8- 8
10- 5 Engineering supplies, Panama.... 9-12
10- 7*Excavation, Detroit, Mich..... 8-29
10- 7*Cement-making machinery, Los Angeles, Cal. 9-19
10- 7 Riprap wall, Toledo, O. 9-26
10- 7 Tunnel, New York, N. Y..... 9-26
10- 7 Retaining wall, New York, N. Y.. 9-26
10- 7 Flagstaff, Ft. Jackson, La..... 9-26
10- 8 Supplies, Washington, D. C..... 9-26
10- 8 Road, Vincennes, Ind..... 9-19
10- 8*Dredging, Detroit, Mich..... 8-29
10- 9*Dredging, Jacksonville, Fla..... 9-12
10- 9*Jetties, Asbury Park, N. J..... 9-19
10-10*Dredging, Jacksonville, Fla..... 9-12
10-10 Canal, Peterboro, Ont..... 8-29
10-12*Excavation, etc., Riverton, Ala.. 9-12
10-14 Eng. supplies, Panama 9-26
10-15*Cement, stone, sand, Hawaii..... 8-29
10-17 Barge canal, Albany, N. Y..... 9-19
10-19 Trunk lockers, Washington, D. C. 9-26
10-21*Barges, etc., Louisville, Ky..... 9-26
10-25*Dredge, Charleston, S. C. 9-26
10-25 Ditch, Ivanhoe, Minn..... 9-19
10-25 Engineering supplies, Panama.... 9- 5
10-28 Steel barges, Panama 9- 5
11-20*Dredge and snagboat, New Orleans, La. 9-26
11-25*Locks, dams, etc., Mobile, Ala.. 9-26

FOREIGN.

9-29 Steel rails, Belgium 9-26
9-30 'Phone material, Australia 9-19
9-30 Railway bridges, Chile..... 8- 1
10- 1 Elec. power equip., Sweden 9-19
10- 8 Drainage, Spain 9-26
10-12 Machinery, Egypt 9-26
10-15 Petroleum reservoirs, Servia.... 9-19
10-16 Pneumatic tube, Australia 9-19
10-17 Steam launches, Egypt 9-26
10-17 Electric lights, Belgium 9-26
10-19*Steel bridge, China 8-22
10-24 Dry-dock, Spain 9-19
11- 1 Pine sleepers, Egypt 8-22
11- 1 Elec. equipment, Egypt 9-19
11- 4 Railway, Italy 9-19
12-15 Bridge designs, Sweden 9-19
12-16 Iron const. material, Brazil..... 8-22
12-26 Bridges, Egypt 8-22
12-31 City lighting, India 6- 6
1- 7 'Phone material, Australia 9-19
1- 8 'Phone material, Australia 9-19

CIVIL SERVICE.

9-28 Arch. Draftsman, Albany, N. Y.. 9-19
9-28 Bridge Draftsman, Albany, N. Y. 9-19
9-28 Asst. Gas Inspector, Albany, N. Y. 9-19
9-28 Axeman, Albany, N. Y..... 9-19
9-28 Bridge Designer, Albany, N. Y... 9-19
9-28 Masonry Inspector, Albany, N. Y. 9-19
9-28 Asst. Counsel, Albany, N. Y..... 9-19
9-28 Librarian, Albany, N. Y..... 9-19
9-28 Tracer, Albany, N. Y..... 9-19
10- 2 Laboratory Asst., Wash., D. C... 9-19
10- 5 Marine Steam Engr., California.. 9-19
10-12 Asst. Sanitary Engr., Albany, N.Y. 9-19
10-12 Asst. Steam Engr., Albany, N. Y. 9-19
10-12 Highway Inspect., Albany, N. Y.. 9-19
10-12 Tinsmithing Inspect., Albany.... 9-19
10-12 Leveler, Albany, N. Y..... 9-19
10-12 Sanitary Inspect., Albany, N. Y.. 9-19
10-12 'Phone Operator, Albany, N. Y.. 9-19
10-12 Transit Inspect., Albany, N. Y.. 9-19
10-19 Map Engraver, Washington, D. C. 9-26
10-23 Steam engineer, Salt Lake City, Utah 9-26
10-23 Architectural draftsman, New York 9-26
10-25 Sanitary Inspector, New York... 9-26
10-28 Gas Inspector, New York..... 9-26
10-30 Oil Surveyor, New York..... 9-26

RAILWAYS.

ALABAMA NORTHWESTERN.—It is stated that this company will build a road which will be 120 miles in length, extending from Gadsden via Attalla, Falkville and Moulton to Tuscumbia, Ala. Construction will not be started until next year. S. E. Gardner is Pres., Landersville, Ala.; J. C. Kumpe, First Vice-Pres.; John W. Davis, Second Vice-Pres.; H. L. Hunter, Secy. and Treas. Headquarters are at Gadsden, Ala. Noted on Aug. 29.

CHERRYVALE, OKLAHOMA & TEXAS.—J. H. Brewster, Gen. Mgr., Independence, Kan., informs us that survey has been made. Right-of-way is obtained. Date for calling for bids and letting contracts is as yet indefinite. S. M. Porter, Caney, Kan., is Pres.; J. B. Dalton, Lawrence, Kan., is Ch. Engr. As previously noted, an amended charter was recently granted to the Cherryvale, Oklahoma & Texas R. R. Co. in Oklahoma, to build 700 miles southwest from Cherryvale, Kan., to El Paso, Tex. The following branch lines are provided: From Caney, Kan., southeast to Fayetteville, Ark., 150 miles; from Pawhuska, Okla., southeast to South McAlester, Ind. T., 200 miles, and from Childress, Tex., southeast, via Abilene, to Aransas Pass, Tex., 600 miles. Headquarters are established at Caney and Independence, Kan., and Perry, Okla. Capital stock, $18,000,000.

CHESAPEAKE & BLUE RIDGE.—Incorporated at Alexandria, Va., with $5,000 capital stock, to build a railroad from a point in Loudon County via either Culpepper or Scottsville to Fredericksburg, Va. T. M. Henry, of Washington, D. C., is Pres.; F. M. Henry, Lumber Exchange, Minneapolis, Minn., is Vice-Pres., and E. S. Perry, of Culpepper, Va., is Secy.

COWETA, FRANKLIN & TROUP.—This company has given notice that it will apply for a charter to build a line from the Central Railway of Georgia or the Atlanta & West Point in Coweta County to Franklin and to a point on the Atlanta, Birmingham & Atlanta in Troup County, about 50 miles. Capital, $300,000. The incorporators are: John W. Daniel, Thomas C. Lane, Ben H. Tompkins, R. B. Mooty, R. M. Lipford, J. W. Ray, Robert G. Crain, James R. Daniel, W. D. Taylor, W. T. Goodson, A. W. Powers, Frank S. Loftin, P. T. McCutchen, Roe Hearn, G. A. Adams, D. B. Whitaker, of Franklin, Heard County, Ga.; A. D. Kitchens, of Texas, Heard County, Ga.; J. E. Dunson, of Lagrange, Troup County, Georgia, and W. C. Wright and W. A. Brannon, of Newman, Coweta County, Ga.

DANVILLE & SOUTHEASTERN.—Incorporated in Illinois to build a railroad from Danville to a point in the southeast corner of Georgetown Township, Vermilion County. Capital stock, $10,000,000. Incorporators: W. H. Carnahan, B. E. Bramble, George M. Mattis, Charles Zilly and C. E. Cox, all of Champaign, Ill.

IDAHO & WASHINGTON NORTHERN.—Work is in progress, it is reported, on this road from Post Falls, Idaho, north to Newport, Wash., and Priest Lake, 50 miles. The line runs from Post Falls north through Rathdrum, along the shores of Fish Lake, touches the north arm of Spirit Lake, borders Mt. Carlton, crosses the Spokane Interantional at Clagstone Junction, where it branches to Newport and to Lake Pend d'Oreille. Next year it is proposed to build along the east shore of Pend d'Oreille River to the sawmills at Custck, Usk, Lenora, and other points and thence down to Box Canyon and Metaline Falls. F. A. Blackwell, of Spokane, Wash., is Pres.

LOOP & LOOKOUT.—Surveys have been completed from Lookout to Riverside, W. Va., 16 miles, and are in progress from Riverside to Glencoe, W. Va. The road will extend from the Lookout terminus of the Keeny's Creek branch of the Chesapeake & Ohio eight miles to Meadow River, thence along the river to Glencoe. It will be a freight road for lumber and coal. Maximum grade will be 2½%. It is expected that grading will begin about Oct. 15. T. W. Raine is Pres., Evenwood, Randolph County, W. Va. Noted on Sept. 5.

NAPA, LAKEPORT & RICHARDSON BAY.—Richard Hotaling, Pres., has succeeded in negotiating for $9,000,000 with which to construct the new road, according to press reports. Surveys are completed, and right-of-way has been acquired. The road is to be completed within two years. A bridge will be built to span the lowlands about the new city of Santa Venetia. A station is to be erected at that point. A tunnel will be bored through McNear Point. Puerto Suello and the San Rafael inlet will be crossed by a drawbridge. A tunnel 3,200 ft. long will be constructed through Schuetzen Park Hill and deep cuts will be made in the Santa Clemente Hills.

PHOENIX & EASTERN.—It has been announced that an extension will be built from Winkelman to San Carlos, Colo. Contract has not been let, but it is expected that work will begin this fall. Epes Randolph, Tuscon, Ariz., is Pres.; E. A. McFarland, Tuscon, is Ch. Engr.

PORT O'CONNOR, RIO GRANDE & NORTHERN.—Track-laying will soon begin upon about 100 miles of finished grading. The first division to be finished will be from Port O'Connor, Tex., north to Yoakum, 90 miles. The main line is to run from Port O'Connor, on the Gulf of Mexico, north to San Antonio, 190 miles. Branch lines are to be built from Gonzales north to Smithville, 50 miles; from Yoakum north to La Grange, 61 miles, and from Seguin northwest to New Braunfels, 15 miles. At Port O'Connor, the Gulf terminus of the line, it is planned to lay out a city and to develop it into a deepwater port. W. S. HIPPS & CO., Houston, Tex., are the contractors. L. A. Gueringer is Ch. Engr., Victoria, Tex.

PRIEST RAPIDS.—Plans have been filed in the United States Land Office showing the route of this proposed road from Wenatchee, Wash., via Chelan and Priest Rapids to a connection with the Northern Pacific at Pasco, Kennewick or Kiona, Wash. K. W. Rust, of Tacoma, Wash., is Pres.; M. B. Haynes, Scheuerman Bldg., Seattle, Wash., is Vice-Pres., and H. K. Owens, Seattle, is Ch. Engr.

ROBERT LEE & FORT CHADBOURNE.—J. T. HUNTER, of San Angelo, Tex., has been awarded the contract for building this road from Robert Lee to Winters, Tex., about 50 miles. Austin Spencer is Pres., San Angelo, Tex. Noted on June 20.

SALINE VALLEY.—Right-of-way has been partly secured for this road, which is to be built in the interest of the Cleveland, Cincinnati, Chicago & St. Louis, from Harrisburg to Marion, Ill., and it is stated that construction will begin soon. W. M. Duane is Ch. Engr., Cincinnati, Ohio.

SAVANNAH, AUGUSTA & NORTHERN.—This road, it is reported, will be 404 miles in length, extending from Savannah, Ga., to Chattanooga, Tenn. The route is via Statesboro, Louisville, Thompson and Washington, Ga., but it has not been determined whether the line will go by way of Athens or Elberton. Surveys have been made from Statesboro to Athens, 160 miles, and surveys are in progress from Washington to Elberton. Grading is under way from Statesboro to Garfield, 24 miles. W. J. OLIVER & CO., of Knoxville, Tenn., have contract for construction. The mileage of the line in Georgia is 400 miles and in Tennessee, four miles. J. A. Brannen is Pres., E. M. Rice, Ch. Engr., and Hinton Booth, Secy., all of Statesboro, Ga. Noted on June 20.

SOUTHERN KANSAS OF TEXAS.—It is stated that this company has filed an amendment to its charter in Texas for the purpose of building a line from a point about one mile southwest of Panhandle to Amarillo, about 30 miles. The road, which is a part of the Santa Fe system, extends from the Oklahoma State line to Washburn, Tex., 115 miles, and uses the tracks of the Ft. Worth & Denver City from Washburn to Amarillo. It is proposed to take up that portion of the track between Panhandle and Washburn and build a new line from near Panhandle to Amarillo. A. Turner, Amarillo, Tex., is Pres. and Gen. Mgr.

UNION CENTRAL.—Company has been incorporated with $225,000 capital to build a line from Dallas, Tex., through Nacogdoches, Anderson, San Augustine and Sabine Counties to the Sabine River, 225 miles. The incorporators are: W. J. Hogue, W. R. Stout, W. Sherman Maple and M. C. Gillette, Dallas; W. H. Marsh, of Tyler; T. B. Poindexter, J. J. Stubbs, of Wortham; J. B. Gordon, of Fairfield; H. H. Hyde, of Houston, and James A. Lucas, of Edgewood, Tex. At a

recent meeting in the Scollard Building, Dallas, W. J. Hogue was elected Pres., T. B. Poindexter, Vice-Pres., and J. A. Lucas, Secy.-Treas. Arrangements are being made for the location survey.

VANCOUVER, VICTORIA & EASTERN.—The contract for grading 40 miles between Keremeous and Hedley, B. C., has been awarded to J. H. STEWART, Grand Forks, B. C.

WHITE PASS & YUKON.—The Victoria, B. C., "Colonist" states that this road will construct an extension through the White Horse copper district next summer. The projected extensions will leave the main line ten miles further up the river than the town of White Horse, and will run through the copper belt for a distance of 20 or 25 miles. S. H. Graves, Chicago, is Pres.; A. L. Berdoe, Vancouver, B. C., is Gen. Mgr.

WILMINGTON, BRUNSWICK & SOUTHERN.—Company has been granted a franchise in Southport, N. C., it is stated, for its line, which is to be built from Navassa, near Wilmington, to Southport, about 30 miles. The road will be completed by Oct. 1. Z. W. Whitehead is Pres.

YANKTON & GULF.—We are advised that Henry L. Resing, of Wichita, Kan., is securing right-of-way through Kansas for this company, which will build a road from Yankton, S. Dak., to Galveston, Tex. Right-of-way has been secured through Oklahoma. Fremont Hill, of Yankton, is Pres.

ELECTRIC RAILWAYS.

LEWISTON, ME.—John A. Jones, of Lewiston, is reported to be making a preliminary survey for an electric railway to be constructed between Lewiston and Portland, a distance of about 33 miles.

BOSTON, MASS.—The State Board of Railroad Commissioners has granted a certificate of public necessity to the Boston & Providence Interurban R. R. Co. to build an electric railway to Providence, R. I.

WALTHAM, MASS.—John H. Bickford, Engr., Salem, Mass., has prepared plans for the Boston, Waltham & Western Elec. R. R. Co., which proposes to build a line from Waltham to Marlboro, with a branch to Maynard. Noted on Aug. 29.

PROVIDENCE, R. I.—The Providence & Danielson Ry. Co. expects to run through cars to Putnam, Conn., and to improve its transportation facilities all along the line. D. F. Sherman, Pres., has stated that he expected most of the changes would be made before the end of autumn. J. E. Thielson, Supt., Banigan Bldg.

PEQUEA, PA.—Notice has been filed at the State Department by the Lancaster & York Furnace St. Ry. Co. of an extension of route from Front St., Pequea, to York Furnace Springs, Mount Nebo, Bethseda and McCall's Ferry, a distance of eight miles. Fred. Shoff, of Lancaster, is Pres.; J. R. Kreider, Millersville, Pa., Gen. Mgr.

NEW CASTLE, PA.—The New Castle Chamber of Commerce has started to raise the $2,000 asked from that city for the purpose of making the survey and securing the necessary right-of-way for the proposed electric line from New Castle to Franklin via Eastbrook, Harlansburg, Plaingrove, Slippery Rock, North Liberty, Harrisville, Parkeyville, Mechanicsburg, Clintonville, Bullton and Raymilton to Polk. B. E. Cutler, of New Castle, is interested.

HANOVER, PA.—The Hanover & McSherrystown St. Ry. Co. has filed notice of the following extensions of route: From North and Church Sts., McSherrystown, to Littlestown, via a bridge over Conewago Creek, a distance of 5.7 miles; on Queen St., Littlestown, to the northern and southern boundaries of the town, a distance of 3,200 ft. Robert E. Manley, Gen. Mgr., Hanover.

ROYERSFORD, PA.—Citizens of Royersford are working to get an electric railway built to Trappe, we are officially informed. I. M. Schellinger is interested.

LANCASTER, PA.—The Lancaster, Oxford & Southern R. R. Co., may convert its line into an electric railway. It now extends from Oxford to Lancaster and Susquehanna, 28 miles. R. B. Dickey, Gen. Mgr., Oxford, Pa.

LEBANON, PA.—The Lebanon Valley St. Ry. Co. may build an extension to the Lebanon Valley Fair Grounds next year. C. H. Smith, Supt.

WHEELING, W. VA.—The Wheeling, Sherrard & Cameron Interurban Elec Ry. Co. is securing right-of-way for its line from Wheeling to Cameron. C. W. McCombs is Pres.; T. B. Cox, Secy. and Gen. Mgr.; R. A. Kiger, Engr., Wheeling.

ELKINS, W. VA.—The Elkins Power Co. has been chartered with authorized capital of $75,000 and proposes, among other things, to operate a street railway in Randolph, Barbour and Taylor Counties. S. B. Elkins and Henry G. Davis, of Elkins; R. C. Kerens, of St. Louis; J. T. Davis and N. I. Hall, of Elkins, are the incorporators.

AMERICUS, GA.—The Americus Railway & Light Co. has been granted a charter and proposes to build four miles of street railway in Americus and vicinity. Capital, $250,000. W. A. Dodson and A. W. Smith, of Americus; E. B. Lewis, of Montezuma; and J. F. Lewis, of Valdosta, Ga., are among the incorporators. Noted on Aug. 8.

QUITMAN, GA.—At a recent meeting of the stockholders of the Quitman, Valdosta & Thomasville Electric Railway Co. the following directors were elected: A. C. McLeod, O. K. Jelks, Frank Spain, J. W. Spain, L. W. Branch, S. S. Bennet, J. D. Wilson, H. L. Young, R. B. Young, E. C. Bridges and Fuller Groover. The following officers were elected: A. C. McLeod, Pres.; H. L. Young, Vice-Pres.; J. J. Jelks, Secy. and Treas. Noted on Sept. 12.

HATTIESBURG, MISS.—Under the title of the Hattiesburg Traction Co., a consolidation of the street railway, the gas company and the light and power company has been made. The company is building an electric railway, which is to be continued to Mammoth Springs. The officers are A. F. Thomasson, Pres.; H. S. Stevens, First Vice-Pres.; H. A. Camp, Second Vice-Pres.; N. B. Blount, Secy.-Treas., and C. Z. Stevens, Gen. Mgr. E. J. O'Beirne is Engr., Cotton Exchange Bldg., New Orleans, La.

CHATTANOOGA, TENN.—The Tennessee Construction Co. has been organized to build the proposed Georgia & Tennessee Interurban Electric Railway projected by S. W. Divine from Chattanooga to Chickamauga Park. Survey is reported completed and right-of-way secured to the park and to Catoosa Springs. Officers of the construction company are Samuel B. Smith, of the firm of Smith & Carswell, Pres.; S. W. Divine, Vice-Pres., and W. M. Elliott, Secy. and Treas. Directors, S. W. Divine, Theo. F. King, W. D. Carswell and W. M. Elliott.

DANVILLE, KY.—T. M. Jenkins, Vice-Pres., Secy. and Gen. Mgr. of the Danville Light, Power & Traction Co., states that the company will build one mile of line, its own forces doing the work, and it is expected to be in operation next year. Noted on Aug. 29.

CINCINNATI, OHIO.—Cincinnati, Dayton & Ft. Wayne Traction Co. will build the Cincinnati-Dayton section first, with the intention of having that part of the road in operation within a year. The location of the Cincinnati terminal has not been decided upon, although there is a possibility that Brighton may be chosen. Right-of-way is being secured in Hamilton County. Dr. Samuel F. George, Dayton, Ohio, is interested.

HAMILTON, OHIO.—Work on the construction of the Cincinnati Northern Traction Co.'s new line, between Hamilton and Middletown, Ohio, has been suspended indefinitely on account of the litigation now pending between the company and the Pittsburg, Cincinnati, Chicago & St. Louis and the Cincinnati, Hamilton & Dayton Railways regarding the crossing of the steam railways by the traction company's line. The road was to have been completed some time this year. J. C. CARLAND & CO., Toledo, Ohio, have the contract for building the road. C. M. Crawford is Ch. Engr., Hamilton.

LANCASTER, OHIO.—The Logan & Athens Construction Co. has made application to the State Board of Public Works for a lease of the tow-path of the canal between Lancaster and Nelsonville, a distance of 33 miles, for the construction of an electric railway. The proposed road will connect Lancaster and Athens. The construction company asks for a 15-year lease on the embankment and proposes to pay for it a sum equal to 6% interest on $52,800. A bond in the sum of $30,000 is required by the state if the lease is made, and in case the terms of the lease have not been complied with in four years the State Board of Public Works would have authority to cancel the lease.

TOLEDO, OHIO.—The County Commissioners have granted a franchise to the Toledo & Delphos Elec. Ry. Co. to use the streets of the village of Neopolis and to cross the county roads where necessary. Proper safeguards must be arranged at each crossing. This line will be constructed on private right-of-way and will touch Maumee, Neopolis and Whitehouse, in Lucas County. It is to be a portion of the proposed Toledo, Wabash & St. Louis Ry.

CRAWFORDSVILLE, IND.—The Terre Haute, Indianapolis & Eastern Traction Co. will build an extension from Crawfordsville, Ind., to Danville, Ill., next spring. Preliminary surveys are made. C. C. Reynolds is Gen. Mgr., Indianapolis.

KANSAS CITY, KAN.—Independence North & South R. R. Co. has been incorporated in Kansas to build a 200-mile system of interurban lines, radiating from Kansas City, West Side, and passing through Wyandotte, Douglas, Johnson, Miami, Coffey, Anderson, Linn, Woodson, Allen, Bourbon, Wilcox, Neosho, Chautauqua, Montgomery and Labette Counties. According to its charter the company may use steam, electricity, compressed air, gas or cables for the operation of its lines. Capital stock, $10,000. Incorporators are C. S. Leeds and F. C. Daniels, of Kansas City, Mo.

GRAND FORKS, N. DAK.—An ordinance granting to the Northwestern Interurban Railway Co. a franchise for the construction and operation of a street railway in Grand Forks has been introduced in the City Council. The proposed line covers the principal streets of the city. James J. Lambrecht, N. Y. Life Bldg., and Dr. J. C. Stewart, Pillsbury Bldg., Minneapolis, are reported to be working on plans for the incorporation of this company with a capital stock of $1,000,000 for the purpose of building electric street railways in Grand Forks and Crookston, N. Dak., and interurban lines connecting the two cities and connecting with Crookston and the Minneapolis, St. Paul & Sault Ste. Marie Ry.

EUREKA SPRINGS, ARK.—Byron M. Hopkins, of Hopkins & Luther, 328 East 63d St., Chicago, Ill., is said to have taken an option on the Citizens' Electric Co., including street railway, lighting and ice plants. W. M. Duncan is Pres. of the Citizens' Electric Co. Improvements may be made.

EL PASO, TEX.—Application for a franchise has been made to the county commissioners of El Paso County by J. W. Gibbs, of El Paso, for the construction of a passenger and freight electric line from El Paso to Ysleta and to San Elizario by way of Socorro. Work is to commence three months after date of granting the franchise, and is to be completed to Ysleta within a year, and to San Elizario within three years.

EDMONDS, WASH.—The Chamber of Commerce is raising a subsidy for the construction of a branch line to connect with the Seattle-Everett Interurban Ry., of which Fred. E. Sander is Pres., Colman Bldg., Seattle.

BRANTFORD, ONT.—The Grand Valley Ry. Co. may soon award contract for construction of the line between Brantford and Port Dover, via Waterford and Simcoe, a distance of 34 miles. T. Andrews is Ch. Engr.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

PORTSMOUTH, N. H.—Bids were received as follows Sept. 21 at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of an extension to the power-house at the Portsmouth Navy Yard, N. H.: Whitton & Haynes Co., 35 Federal St., Boston, Mass., (a) $42,982, (b) $70; C. M. Leach, Navy Yard, Boston, Mass., (a) $41,363, (b) $300, (c) $39,887; Conners Bros. Co., 157 Plain St., Lowell, Mass., (a) $44,000; (b) $125, (c) deduct $270.

FALL RIVER, MASS.—It is reported that the Board of Aldermen has decided to authorize the Mayor to let contract to the FALL RIVER ELECTRIC LIGHT CO. for lighting the streets of the city for a term of five years. By the terms of the contract the city secures a reduction from 30 cts. to 25 cts. a night for arc lamps, which amounts to a saving of about $15,000 a year over the contract now in force. The company will replace the present arc lighting system with new magnetite arc lamps. Harry Bottomley, Fall River, is Supt.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Bd. of Education, until 11 a. m., Sept. 30, for installing electric equipment in addition to and alterations in Public School No. 59, on the south side of 57th St., about 100 ft. west of Second Ave., Boro. of Manhattan.

The following bids were received on Sept. 23, by C. B. J. Snyder, Supt. School Bldgs., New York, for installing electric equipment in (a) new Public School No. 89, on the southeasterly side of Orchard Ave., between Fifth and Sixth Sts., Elmhurst, Boro. of Queens; and (b) in addition to and alterations in Public School No. 96, on the east side of Ave. A, between East 81st and East 82d Sts.: L. F. Benn, 725 Broadway, (a) $11,240; Griffin & Co., 150 Nassau St., (a) $13,659, (b) $11,309; Peet & Powers, 225 Fourth Ave., (a) $12,486; E. J. Duggan, 206 Broadway, (a) $14,477, (b) $11,120; Commercial Construction Co., 114 East 28th St., (a) $12,835, (b) $11,659; T. Frederick Jackson, Inc., 592 Columbus Ave., (a) $12,820, (b) $10,573.

ATLANTIC CITY, N. J.—The City Council has granted the petition of the business men of Atlantic Ave. to light the streets with an incandescent lighting system from New Jersey to Florida Ave. Estimated cost, $12,000.

MORRISTOWN, N. J.—We are officially advised that WILLIAM M. SHEEHAN, 136 Liberty St., has been awarded contract to construct a steam electric light plant with 60 arc and 550 incandescent lamps for the Morris & Somerset Electric Co. Cost, $150,000. P. V. Stykes is Treas. and Gen. Mgr.

PITTSBURG, PA.—The Bureau of Building Inspection has granted to Sisters of Charity at the Convent of Mercy a permit to erect a 2-story brick power-house on Fifth Ave., 14th Ward, to cost $25,000.

PHILADELPHIA, PA.—JOHN R. WIGGINS & CO., 1215 Filbert St., have been awarded a contract by John T. Windrim, Arch., Commonwealth Bldg., for constructing an auxiliary power station for the Philadelphia Electric Co. in the rear of 3945 Market St. It will be a 2-story structure of brick and terra cotta, 30 × 60 ft., to cost $15,000. The Philadelphia Electric Co. is building a similar plant at 1111 Arch St., to cost $50,000. Frank B. Ball, Philadelphia, is Secy.

BALTIMORE, MD.—HORN & BRANNEN, 427 North Broad St., Philadelphia, Pa., have been awarded contract for furnishing light fixtures in the public buildings under the control of the Treasury Department in Baltimore, Md., at $10,613, bids for which were opened Sept. 4, at the office of the Superintendent of the Treasury.

OXFORD, MD.—We are officially advised that machinery for the proposed electric light plant for the Oxford Ice & Electric Co. will be ordered at once. Penniman & Fairley, Marine Bank Bldg., Baltimore, Md., are Engrs.

WASHINGTON, D. C.—Walter C. Allen, Electrical Engr., of the District, submitted to the Commissioners on Sept. 13 the annual estimates for his department for the next fiscal year, asking $259,000 for lights, etc., an increase of $5,000; $124,350 for electric lighting, an increase of $17,850; $5,000 for 27 additional fire alarm boxes; $1,700 for repairing fire alarm boxes; $75,000 for replacing the present paper insulated underground fire alarm cables with rubber cables; $3,000 for cost of increasing the small tapper fire alarm circuits from 4 to 10; $13,000 for purchasing and erecting insulated wires and cables to replace present bare copper wires used in fire alarm circuits; $13,000 for the purchase of 65 additional fire alarm boxes, etc.

The following awards have been made under bids opened Sept. 3 by the Chief Signal Officer, U. S. A., for wire: STANDARD UNDERGROUND CABLE CO., Westinghouse Bldg., Pittsburg, Pa., 80,000 ft. inside twisted pair wire No. 19, Specification No. 340, $10.80; SAFETY INSULATED WIRE & CABLE CO., New York, 15,000 ft. rubber-covered wire No. 14, Specification No. 432, $14.15; CENTRAL ELECTRIC CO., 264 Fifth Ave., Chicago, Ill., 15,000 ft. messenger strand ⅝-in., $1.11⅝.

WASHINGTON, D. C.—Bids were received as follows Sept. 21 at the office of Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, D. C., for furnishing fans and motors for the new House of Representatives Office Building: B. F. Sturtevant Co., Washington Loan & Trust Bldg., Washington, (a) $18,824, (b) $11,901, (c) $1,428, (d) $901, (e) $2,862, (f) $2,223.

WARE SHOALS, S. C.—C. R. WILLARD & CO., of Spartanburg, S. C., have been awarded the contract, it is stated, to build two dams for hydro-electric power development, one at Ware Shoals and the other at Brown's Mills, seven miles from Ware Shoals, the first to cost approximately $75,000 and the second about $50,000.

McCORMICK, S. C.—The city has awarded contract to PAUL B. WILSON, Abbeville, S. C., to install a 35-HP electric lighting and power plant. Contract calls for 300 incandescent lights, of which eight of 100-c. p. are for streets.

SAVANNAH, GA.—Bids are asked until Oct. 15 by the Commissioners on Streets and Lanes for illumination of the streets of the city by electric arc and incandescent lamps, and also for supply of electricity to be used for illumination, heating and power purposes. Harry Willink is Dir.

HUNTSVILLE, ALA.—The Huntsville Railway, Light & Power Co. has prepared for doubling capacity of power plant, expending about $35,000. Frank N. Lawton is Mgr.

YAZOO CITY, MISS.—We are officially informed that the construction of a gas plant at Yazoo City will be under the supervision of the Huston Engineering Co., Macheca Bldg., New Orleans, La. Estimated cost, $100,000.

FOREST, MISS.—E. Cahn, Meridian, Miss., Mgr. of Forest Ginning & Mfg. Co., will install electric plant for lighting the town.

CARROLLTON, MISS.—We are officially advised that the Huston Engineering Co., Macheca Bldg., New Orleans, La., has been retained to take charge of engineering work in connection with installation of an electric light plant at Carrollton. Cost, $6,000.

OXFORD, MISS.—The power plant of the University of Mississippi, which was destroyed by fire on Aug. 30, causing a loss of $10,000, will be rebuilt at once, it is reported. The city is contemplating building a municipal electric lighting plant in connection with the water works. The electric plant at the University supplied electricity for lighting the town.

COVINGTON, LA.—The St. Tammany Ice & Mfg. Co., it is stated, will make extensive additions and improvements to its power station. E. J. Frederick is Secy and Gen. Mgr.

HAMILTON, OHIO.—Joseph G. Steinkamp & Bro., Archs., Mercantile Bldg., Cincinnati, have let general contract to J. R. BENDER & BRO., Hamilton, for constructing a 1-story condensing and ammonia house, for the Hamilton Gas & Electric Co., Hamilton. Cost, $10,000. W. E. Howell is Gen. Mgr.

CLEVELAND, OHIO. — The Cleveland "Plain Dealer" states that the Cleveland Electric Illuminating Co. is to build a generating plant on the shore of Lake Erie. It is said to be the intention to construct a water tunnel costing about $1,000,000 into the lake to supply the plant with water. The company has purchased between ten and twelve acres of land on the lake shore just west of East 70th St. Here the generating plant will be built. Robert Lindsay is Gen. Supt.; Walter P. Rice, Engr., is making preliminary plans; C. F. Schultz is Ch. Engr. of Water Dept.

WASHINGTON, IND.—The City Council has taken steps to improve the municipal lighting plant.

PRINCETON, IND.—The Consumers' Gas & Light Co. is preparing to erect a new plant in the B. M. A. addition. The new plant will call for a complete equipment.

VINCENNES, IND.—The Board of Works has awarded a contract to C. B. SHAFFER, Farmers' Bank Bldg., Pittsburg, which includes a franchise to pipe natural gas to this city.

CRAWFORDSVILLE, IND.—Bids are asked by the County Commissioners until Oct. 5 for installing a lighting plant at the county asylum. B. F. Corwin is County Audr.

MITCHELL, IND.—S. A. Thresher is at the head of a company that is making a survey for construction of a power dam on White River, near this city. This contract will be let as soon as preliminary matters are completed. Estimated cost, $1,000,000.

PAINSDALE, MICH.—The Copper Range Electric Co., Painsdale, Mich., is preparing plans for a power plant, to be located about five miles from this town and to be equipped with two 200-KW. generating units and 1,500 HP. of water-tube boilers. Three substations will be built, each of which will be equipped with three 400-KW. transformers. The plant will furnish electricity for the Copper Range Consolidated Co.'s mines at Painsdale, Trimountain and Baltic. W. A. Rankin is Electrical Engr. and John M. Wagner, Pur. Agent, with headquarters at Houghton, Mich.

ALBION, MICH.—The Albion Gas Light Co. has plans to expend $25,000 in improvements the coming year, including a gas receiver and steel and brick coke shed. Paul Ray is Supt.

BAY CITY, MICH.—The E. I. Dupont Powder Co., Wilmington, Del., has decided to install a 200-light generator and other necessary electrical machinery in its plant on Morton St., it is reported.

WALWORTH, WIS.—The Elgin, Belvidere & Rockford Electric Ry. Co. has purchased the equipment and road of the Chicago, Harvard & Geneva Lake Ry Co. and, it is reported, will construct an addition to the power plant here. Estimated cost of total improvements, $600,000. H. T. Windsor, Walworth, is Mgr.

PRAIRIE DU LAC, WIS.—A dam to cost $1,000,000, will be built at Pounds Landing on the Wisconsin River, one mile north of this village. The State Legislature has granted articles of incorporation to Magnus Swanson, Madison; M. A. De Witt, Chicago, Ill., and others. J. S. Tripp, of Prairie du Lac, and Robert Burki, of Sauk City, are interested also. The purpose of this dam is to furnish electric power for cities and towns extending as far as Madison, Janesville, and Beloit. It will furnish 12,000 HP. and will be of steel cement construction. The actual work of building will commence as soon as authority is obtained from Washington.

DAVENPORT, IOWA.—Plans are being prepared to construct a water power plant on the Mississippi River above Davenport. F. H. Griggs is interested in the enterprise.

MARSHALL, MINN.—The contract for the construction of the municipal electric light-ing plant has been awarded to J. G. ROBERTSON & CO., 29 Gilfillan St., St. Paul, Minn. Work on the construction of the plant will commence at once. The equipment of the plant will consist of two 200-KW., 3-phase, 60-cycle, 2,300-volt, alternating-current generators, made by the Fort Wayne Electric Works; Ideal and Lane & Bodley engines having a capacity of 325 HP., and Brownell boilers of 400 HP. E. Simmons is Supt.

BIWABIK, MINN.—The contract for the proposed electric light plant has been awarded to the BURGESS ELECTRIC CO., at $4,000. The plant will be installed at the Biwabik mine shops. The contract was awarded by the Village Council.

HAVELOCK, NEB.—A 500-HP. dynamo, which will furnish illumination and power for all of the shops and yards of the Chicago, Burlington & Quincy Ry. Co., at Havelock, is to be installed soon. Work will begin on the plant at once. It is the initial move of the company in establishing its own power plants over its entire system. A power-house will be placed at Burnham for the purpose of furnishing light for the yards and depot in Lincoln, Neb. The plant at Burnham will not be as large as that at Havelock but will be adequate to furnish illumination for the entire trackage of the system in the city as well as to supply light for the depot and the approaches. I. S. P. Weeks, Lincoln, is Engr.

CAMPBELL, MO.—A. C. Morse, proprietor of the Campbell electric light plant, it is stated, contemplates installing a 150-KW. alternator, a 150-HP. Corliss engine, a tubular boiler of 150 HP. and a 10-ton ice plant, and is planning to extend the lines to Piggott, Ark., to furnish electricity for street and general lighting purposes.

JOPLIN, MO.—The Joplin & Pittsburg Street Ry. Co. will let contracts soon for machinery and equipment in connection with the electric railway it is building between Joplin and Pittsburg, a distance of 24 miles. The company is planning to build two substations, one at Chitwood and the other at Asburg, Mo., and also a car barn at Joplin. W. O. Hands, Kansas City, Mo., is Gen. Mgr.

RUSSELLVILLE, ARK.—We are officially advised that Edwin Cook, Engr., 401½ Main St., Pine Bluff, Ark., has prepared plans and specifications for a masonry and concrete dam for the Russellville & Ozark Mountain Traction, Light & Power Co., to be constructed across Illinois Bayou near Russellville. Plans and specifications can be seen at engineer's office, Pine Bluff, or at Brooks & Hays' office, Russellville. Bids are wanted for construction at once. The dam is to be built by day work. Bidders are requested to visit site where dam is to be constructed.

FORT SMITH, ARK.—The Fort Smith Light & Traction Co. is making arrangements to increase the capacity of its plant. New boilers, dynamos and other machinery will be installed. J. Walter Gillette is Gen Mgr.

HANDLEY, TEX.—The Northern Texas Traction Co., H. T. Edgar, Gen. Mgr., Fort Worth, will double capacity of its power-house, expending about $150,000.

DALLAS, TEX.—The Dallas Traction Co. is advertising for bids for construction of the four substations to be built along the line of the electric interurban railway now under construction between Sherman and Dallas. The substations are to be located at Dallas, Plano, Van Alstyne and Sherman.

LAS ANIMAS, COLO.—Bids are asked until 11 a. m., Nov. 9, at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing a central power, lighting and heating plant, with accessories, at the U. S. naval hospital, New Fort Lyon, Bent County, Colo. William M. Smith is Acting Ch. of Bureau, Washington. Specifications are on file at the office of Engineering News, New York.

ALAMOGORDO, N. MEX.—The Sacramento Power Co., capitalized at $1,000,000, has filed papers of incorporation at Santa Fe. U. S. Houghland and J. A. Gilchrist, of Kansas City, Mo., and A. T. Payne, of Oklahoma City, Okla., are mentioned in the papers filed. The water-power is derived from the Sacramento River.

SPOKANE, WASH.—It is reported that probably within 60 days the Big Bend Water Power Co. will have a force of men at work at its power site, 28 miles down the Spokane River. The cost of the plant, including duplicate, transmission lines to Spokane and to the Coeur d'Alene, will be about $2,000,000. The company expects to have the plant installed in two years. The dam which the company will construct at its site on the Spokane River will be 489 ft. in length and 100 ft. high. It will be 130 ft. wide at the bottom and 30 ft. at the top.

ST. HELEN, ORE.—The St. Helen Mill & Power Co. is preparing to install a plant and have cut a ditch 12 ft. wide, 4 ft. deep and 800 ft. long, paralleling the Toutle River on an easy grade, giving 2½% fall. By placing a headgate at the beginning of the flume line, all the water flowing out of Spirit Lake has been diverted through the flumes. Water is utilized for carrying on the work. The company is installing a Pelton water-wheel at the end of this shoot flume, where a sawmill will be erected. The flume line will extend 27,000 ft. within the Mount Rainier Forest Reserve, permission for the use of same having been granted by the Secretary of the Interior, and a fall of 860 ft. will be gained, which will generate approximately 20,000 HP. Engineers have the plans and specifications nearly completed for the enterprise.

MARSHFIELD, ORE.—The Coos Bay Light & Power Co. is planning to increase the capacity of its plant and will soon install four 100-HP. boilers, one 650-HP. simplex Corliss heavy duty engine, a 450-KW. 3-phase 60-cycle alternating-current dynamo and a direct-current generator of 250-KW. capacity. The company will be in the market for two street cars and equipment, and a number of alternating-current meters and transformers. Seymour H. Bell, Portland, Ore., is Mgr.

SALEM, ORE.—The Portland General Electric Co., in this city, has let contract to the WESTERN GAS CONSTRUCTION CO. for a new regenerative coal gas plant to be installed in place of the present equipment at cost of $15,000. It is to be completed by Dec. 1 of this year and as soon as the new plant is in operation the old plant will be entirely rebuilt.

CORVALLIS, ORE.—The City Council has passed a gas franchise asked for recently by James Steel, of Salem, giving him the right to manufacture gas in Corvallis for 25 yrs. Work will begin on the construction of the plant at once, and the plant will be located on the bank of the Willamette River. The building is to be 40 × 70 ft., two stories high, and the entire plant will cost about $20,000. The distributing system will require about ten miles of pipe.

TURLOCK, CAL.—It is stated that work on the construction of an electric light plant will commence at once. The Board of Supervisors has ordered a franchise to be granted to the Turlock Electric & Water Co., giving it the privilege to erect poles and wires for furnishing electricity for lighting and power in and about Turlock. It is stated that options have been taken on several blocks of land, as a site for the plant. C. H. Weed is interested.

FRESNO, CAL.—The San Joaquin Power Co. is reported to be making arrangements to increase the capacity of power plant No. 1 from 2,500 to 12,500 HP.

SISSON, CAL.—The Southern Pacific Co., it is stated, has announced that it would build a dam on the Klamath River and install an electrical power plant to operate its trains over the Siskiyou Mountains by electricity. A. H. Babcock, San Francisco, Cal., is Electrical Engr.

BRIDGEPORT, CAL.—Preliminary surveys are being made east of Bridgeport for the site of the power plant to be erected by the Nevada-California Power Co., which will supply the Tonopah and Goldfield country, Nev., with lights and power. Application has been made for the construction of the reservoirs and ditches. L. F. Merwin, Goldfield, Nev., is Supt.

SAN JOSE, CAL.—The National Park Electric Co. has completed surveys for development of 50,000 HP. on the Tuolumne River. The company contemplates an expenditure of between $4,000,000 and $5,000,000 in construction of power plants and transmission lines. A. C. Kuhn, Charles J. Kuhn, Ralph Hersey, Charles Quilty, of San Jose, and B. P. Oliver, of San Francisco, are interested in the enterprise.

OAKLAND, CAL.—Plans have been completed by the Western Power Co. for the erection of its power plant in this city which is to be the main auxiliary to the company's power plant on the Feather River. The plans adopted contemplate a building 250 ft. long and 100 ft. wide. It is proposed to install turbine generators of 5,000 HP., besides the necessary steam generating plant. In eight months the plant will supply 50,000 HP., and by Oct. 1, 50,000 HP. will be transmitted from the plant at Great Bend on the Feather River, a distance of 140 miles. The cost of the auxiliary plant is estimated at $2,500,000. About 50 miles above Great Bend the company proposes to dam the Feather River and to create a reservoir. Coyote Creek is to be dammed, and with the Feather River, over 300,000 HP. will be produced. H. P. Wilson, of Brown & Wilson, is interested.

RENO, NEV.—The San Francisco "Chronicle" states that a plant with 42,000 HP. to supply the cities of Nevada, Marysville and the northern part of the Sacramento Valley with electricity is planned by Richard Phelan, Reno. Mr. Phelan owns six lakes across the California border near Sierra City—Gold Lake, Eagle Lake and the four Bear Lakes. He controls the water rights on the upper streams of the Feather and North Yuba Rivers. The surveyed distance to Reno is 42 miles, and he estimates he can install a system for Reno at a cost of $50,000 and make the power rate one-half what it now is. The United States Geological Survey shows a 2,000-ft. drop in six miles at the foot of Gold Lake, and taking advantage of this in generating power is where Mr. Phelan makes his low cost of production.

TORONTO, ONT.—A building permit has been granted for the erection of a brick boiler house, condenser house and smokestack to the Consumers' Gas Co.; cost of work, $60,000. W. H. Pearson, Toronto, Ont., is Gen. Mgr.

LONDON, ONT.—John M. Moore, C. E., of London, is the engineer in charge of the water system and power plant which it is proposed to install here at a cost of about $575,000. Date of opening bids for construction has not yet been decided upon. O. Ellwood is Secy.

OTTAWA, ONT.—The Municipal Electric Committee has made a recommendation to the City Council that it be authorized to make the following offer to Gilmour & Hughson, Hull Mills, the owners of Chelsea power: One-half the bed of Gatineau River at the Fall of Chelsea, with the right to develop 25,000 HP., be purchased by the city for $200,000, and that the city agree to build inside of ten years a dam across the entire river, capable of establishing an 80-ft. head at the seat of power.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

DANBURY, CONN.—The contract for constructing the bridge over Still River at White St. has been awarded to S. W. BOYLES CO., of New York, for $8,355.

NEW YORK, N. Y.—Bids are asked by the Department of Bridges, James W. Stevenson, Comr., until 2 p. m., Oct. 3, for constructing Madison Ave. bridge over Harlem River.

WILLIAMSPORT, MD.—Plans and specifications are being prepared by Mason D. Pratt, of Harrisburg, Pa., for constructing the Washington and Berkeley Bridge for the Washington & Berkeley Co., Victor Cushwa, Pres.

MORGANTOWN, W. VA.—The County Court has awarded contract for constructing steel superstructure of bridge across Monongahela River to the CANTON BRIDGE CO., of Canton, Ohio.

COLUMBUS, GA.—It has been decided to issue bonds amounting to $75,000 for constructing either a steel or concrete bridge across Chattahoochee River at Dillingham St.

VICKSBURG, MISS.—Bids are asked by the Board of Aldermen, H. J. Trowbridge, Clk., and County Supervisors, J. D. Laughlin, Clk., until noon, Oct. 8, for constructing concrete bridge at the City Cemetery road.

PLAQUEMINE, LA.—The Penn Bridge Co., Beaver Falls, Pa., submitted the lowest bid received Sept. 9, for rebuilding steel bridge over Bayou Plaquemine, at $20,400.

ST. CLAIRSVILLE, OHIO.—Bids are asked until Oct. 7 by A. W. Beatty, Co. Audr., for furnishing material, constructing and repairing bridges and retaining walls in the county.

TOLEDO, OHIO.—Bids are asked by the Board of County Commissioners until 10 a. m., Oct. 14, for constructing two concrete masonry abutments for bridge across Ten Mile Creek at Ottawa Terrace, Washington Township.

HAMILTON, OHIO.—Bids are asked by the Board of County Commissioners until 10 a. m., Oct. 8, for constructing sub and superstructure of bridge over Two Mile Creek at Seven Mile Pike. C. Pabst is County Audr.

CLEVELAND, OHIO.—The PITTSBURG CONSTRUCTION CO., Diamond Bank Bldg., Pittsburg, Pa., has been awarded contract for construction of single leaf Scherzer rolling lift bridge at Cleveland for the Baltimore & Ohio R. R. Co. The bridge will be 230 ft. in length.

INDIANAPOLIS, IND.—Bids are asked by the County Commissioners until 10 a. m., Oct. 5, for constructing the following bridges and culverts: Bridges over Eagle Creek on Bells gravel road, Lawrence Township; Pogues Run, on Sherman Drive, Center Township; culverts at Copeland's Place, West Newton road, Decatur Township; Augusta road, Pike Township; northwest quarter sec. 18, Wayne Township; south line of Section 21, Decatur Township; Big Run, east line of Section 10, in Lawrence Township. C. J. Clark is County Audr.

TIPTON, IND.—Bids are asked by the County Commissioners until 1 p. m., Oct. 7, for construction of bridge over Turkey Creek. J. F. Barlow is County Audr.

GREENFIELD, IND.—Bids are asked by the County Commissioners until 10 a. m., Oct. 1, for constructing the following bridges: Harrold bridge, Jackson Township; Whistler bridge, Brown Township; Black bridge, Sugar Creek Township; Allender bridge, 14-ft. span, with concrete abutments; Duncan bridge, 14-ft. span, with concrete abutments; Hill bridge, 14-ft. span, with concrete abutments; Scatton bridge, 16-ft. span, with concrete abutments. Wm. I. Garriott is County Audr.

EVANSVILLE, IND.—Bids are asked by the County Commissioners until 10 a. m., Oct. 3, for constructing three reinforced concrete bridges. Harry Stinson is County Audr.

ANDERSON, IND.—The Indiana Union Traction Co. will expend $40,000 for construction of bridge over White River at Clusterton, making fills and taking a bad curve out of the line at that point.

MARQUETTE, MICH.—The JOLIET BRIDGE CO., of Joliet, Ill., has been awarded contract for erecting bridge across Escanaba River near Marquette.

STERLING, ILL.—The CLINTON BRIDGE & IRON WORKS, Clinton, Iowa, has been awarded contract for constructing bridge across Howland Creek east of Rock Falls, for $3,755.

CHICAGO, ILL.—The lowest bid received Sept. 14 by the Board of Public Works for constructing the 95th St. bridge was submitted by the Warner Construction Co., 112 Clark St., Chicago, at $17,396. But one other bid was received, that of the M. P. Byrne Construction Co., at $23,390.

HAZEL GREEN, WIS.—Bids will soon be asked by the Town Board, D. S. York, Clk., for constructing two bridges.

COUNCIL BLUFFS, IOWA.—The N. M. STARK CO., of Des Moines, has secured the contract for constructing reinforced concrete bridge across Indian Creek. W. H. Lopp is City Clk.

FORT SNELLING, MINN.—The contract for constructing steel bridge across Mississippi River at Fort Snelling has been let to BAYNE & HEWETT, 202 Commercial Bldg., Minneapolis, Minn., for $230,000. Col. James B. Quinn is in charge of construction.

JACKSON, MINN.—The County Commissioners have decided to construct bridge across Des Moines River at Jackson. Estimated cost, $4,000.

ATCHISON, KAN.—Bids are asked until Oct. 7 by the Board of Commissioners, J. C. Hotham, Chn., for rebuilding bridge No. 230, Mt. Pleasant Township.

WICHITA, KAN.—The contract for constructing reinforced concrete bridge over Arkansas River at Douglas Ave. has been awarded to the CANTON BRIDGE CO., of Canton, Ohio, for $97,000.

BEATRICE, NEB.—Bids are asked by B. H. Conlee, County Clk., until noon, Sept. 27, for constructing reinforced bridge.

FARGO, N. DAK.—Bids are asked by the Board of County Commissioners until noon, Oct. 8, for constructing five bridges. Arthur L. Lewis is County Audr.

*GLENDIVE, MONT.—Bids are asked by the U. S. Reclamation Service at Glendive, until 2 p. m., Nov. 15, for constructing 34 steel highway bridges in connection with the Lower Yellowstone Project, N. Dak.-Mont.

LEWISTOWN, MONT.—The City Council has awarded contract for constructing steel and concrete bridge at Main St. to N. J. LITTLEJOHN, at $4,475.

ST. LOUIS, MO.—The contracts for constructing the nine piers of the McKinley Bridge have been awarded to the MISSOURI VALLEY BRIDGE & IRON CO., Koken Bldg., at $385,796.

MADISON, ARK.—A 4-span steel drawbridge will be constructed at Madison, provided the plans of the promoters, Senator F. W. De Rossitt and associates, are adopted by the Court. Estimated cost, $28,000.

OZAN, ARK.—It has been decided to replace the present bridge over Middle Ozan River, near Ozan, with a modern steel bridge. J. M. Crosnoe, of Hope, is County Road and Bridge Comr.

IOLA, COLO.—Bids are asked until Sept. 27 by T. W. Jaycox, State Engr., Denver, for constructing 200-ft. steel highway bridge across Gunnison River at Iola.

GREELEY, COLO.—We are officially advised that the lowest bid received Sept. 20 for constructing reinforced concrete bridge was submitted by C. G. Sheeley, of Denver, at $6,390 for concrete hand rails, and $5,965 for 2-in. pipe hand rails.

TOPPENISH, WASH.—Bids are being received by the Toppenish Commercial Club Bridge Commissioner for constructing bridge over Yakima River near Toppenish.

AUBURN, WASH.—The County Commissioners have let contract for constructing bridge across Stuck River near Auburn to the NORTHWEST BRIDGE CO., for $5,852.

INGOT, CAL.—The Board of Supervisors has awarded contracts for constructing two bridges across Cow Creek at Ingot to WILLIAM STEPHENS, for $2,782.

SAN DIEGO, CAL.—The only bid received by the Board of County Supervisors for constructing the Lakeside Bridge across San Diego River was submitted by Charles Steffgen, for $12,875.

LOS ANGELES, CAL.—The Board of Supervisors has let contract to the MERRY-ELWELL BRIDGE CO. for constructing steel bridge across Santa Ynez River, for $22,347.

EUREKA, CAL.—The lowest bid recently received by the Board of Supervisors for constructing steel bridge across Ryan's Slough was submitted by F. L. Smith, at $3,375.

SANDPOINT, IDAHO.—The Board of County Commissioners has awarded contract to O. E. PEPPARD, of Missoula, for constructing 120-ft. bridge across Moyle River, for $3,200.

CALDWELL, IDAHO.—Bids will soon be asked by the San Francisco, Idaho & Montana R. R. Co. for constructing 750-ft. bridge over Snake River. F. H. Richardson, at Caldwell, is Ch. Engr.

VANCOUVER, B. C.—The Bridge Committee will soon submit a by-law appropriating $1,000,000 for bridge purposes, to be distributed as follows: Granville St., $500,000; Westminster Ave., $150,000; Cambie St., $235,000; Coal Harbor, $55,000, and $60,000 for contingencies.

WINNIPEG, MAN.—BUCHANAN & CO., Winnipeg, have been awarded the contract for erection of wooden Howe truss bridge across Winnipeg River in connection with the power development, for $44,127.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

NEWTON, MASS.—The plans for the Technical High School, which is to be erected in this city, have been completed by George F. Newton, Arch., 6 Beacon St., Boston, who was appointed by the Mayor to furnish them, and have been approved. The building is in the form of an H, three stories high, the pupils' entrance being in the center of the two wings formed by the verticals of the H. A corridor 12 ft. wide extends entirely across the building, with short corridors toward the front and rear of each wing. The public entrance will be from Walnut St. through the front court.

NEW YORK, N. Y.—The following bids were received Sept. 23 by C. B. J. Snyder, Supt. Schools, Bd. of Education, for (a) completing and finishing the heating and ventilating apparatus in additions to and alterations in Public School No. 100, on the southerly side of Dumont Ave., between Sackman and Powell Sts., Boro. of Brooklyn, in accordance with the original plans and specifications of contract awarded to Rossman & Bracken Co., which has been declared abandoned; in new Public School No. 151, on northerly side of Knickerbocker Ave., between Halsey and Weirfield Sts., Boro. of Brooklyn, in accordance with the original plans and specifications of contract awarded to Rossman & Bracken Co., which has been declared abandoned; (c) for installing heating and ventilating apparatus in new Public School No. 91, on the northeast corner of Forsyth and Stanton Sts., Boro. of Manhat-

tan: W. R. Bracken & Co., 146 West 93d St., (a) $18,500; William J. Olvaney, 177 Christopher St., (a) $20,658, (b) $5,784, (c) $58,755; Blake & Williams, 211 West 20th St., (a) $20,517, (c) $50,983; Frank Dobson Co., 319 East 53d St., (a) $21,250, (b) $9,-992, (c) $52,612; Hopkins Jordan Co., 148 West 24th St., (a) $19,500, (b) $6,400; Gillis & Geohagen, 537 West Broadway, (a) $20,490, (b) $5,675; E. Rutzler, 127 White St., (c) $51,134; G. A. Sutton, (c) $51,825; James Curran Mfg. Co., 512 West 136th St., (c) $53,783.

NEW YORK, N. Y.—We have been advised by McKim, Mead & White, Archs., 160 Fifth Ave., that they probably will let contracts at the end of September for constructing a law building for Columbia University, to be known as Kent Hall. The structure will be four stories high with attic, 206.6 × 91.6 ft., will cost $400,000 and will be erected at 116th St. and Amsterdam Ave. The main floor will contain a law library and the upper floors will be laid out in a series of studies, with lecture rooms at either end of the corridors, which will be 206.6 ft. long.

Bids are asked until 2.30 p. m., Sept. 30, by Robert Hebberd, Comr. of Public Charities, for erection and completion of Coney Island Hospital, Boro. of Brooklyn.

The P. J. Carlin Construction Co., 15 East 23d St., has let carpenter contract to R. B. FERGUSON, 252 Lee Ave., Williamsburg, for a church for the Church of St. Barbara, Rev. James J. Hanselman, Pastor. Cost, $200,000.

NEW YORK, N. Y.—We are advised by John C. Watson, Arch., 217 West 125th St., that plans are being completed for a 4-story brick and stone residence to be erected on Northern Ave., near 181st St., for Dr. Charles V. Paterno, 620 West 116th St. The building will have a glass roof over the fourth floor, on which will be constructed a sunparlor, bird-house and conservatory. In the basement there will be a swimming-pool 50 × 15 ft. Bids will be received in about six weeks.

Bids are asked by the Armory Board until 2 p. m., Oct. 7, for excavating the plot for proposed armory building for the Second Battery, N. G., N. Y., at the corner of Franklin Ave. and East 168th St., Boro. of the Bronx; building an armory for the Second Battery, N. G., N. Y. (exclusive of excavating), at the corner of Franklin Ave. and East 168th St., Boro. of the Bronx.

We are officially advised that Neville & Bagge, Archs., 217 West 125th St., have prepared plans for a 10-story brick and stone store and apartment building, to be erected at 112th St. and Broadway, at a cost of $750,000. A. C. & H. M. Hall Realty Co., 3070 Broadway, are owners. Bids will be received in about a week.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Bd. of Education, until 11 a. m., Sept. 30, for installing heating and ventilating apparatus for addition to Public School No. 41, on east side of Greenwich Ave., about 140 ft. north of West Tenth St., Boro. of Manhattan; also for installing heating and ventilating and electric generating apparatus and electric elevator in the Parental School on the west side of road, between Flushing and Jamaica, about 1,700 ft. south of North Hempstead Turnpike, Flushing, Boro. of Queens.

We are officially informed that estimates are being taken on steel fireproofing for a 12-story brick and stone store and loft building, 50 × 82 ft., to be erected for the Fischel Realty Co., 62 West 113th St., at 48 West 21st St. Contract for construction will be let in about ten days. Cost, $250,000. Schwartz & Gross, 35 West 21st St., are Archs.

Neville & Bagge, Archs., 217 West 125th St., advise us that they are preparing plans for the Times Realty Co., 601 West 135th St., for a 6-story brick and stone apartment house, 130.11 × 87 ft., to be erected on the west side of Broadway, near 122d St. The building will cost $175,000, and bids will be received at once.

SYRACUSE, N. Y.—Archimedes Russell, Arch., 321 The Bastable, is preparing plans to remodel the old court-house for the city of Syracuse. Cost, $200,000.

YONKERS, N. Y.—Ground has been broken for City Hall to be erected in Washington Park, Yonkers. The cost will be about $350,-000, and the style the French Renaissance. The building will have a frontage of 174 ft. and a depth of 102 ft. The ground floor will be constructed of Mile Square granite, while face brick and terra-cotta will be employed on the other floors. The building will be in the form of a letter H. Edwin A. Quick & Son., 18 Getty St., Yonkers, are Archs.

EAST ORANGE, N. J.—Edwin V. Warren, Arch., 22 Clinton St., Newark, N. J., is preparing plans for a 4-story hotel, 50 × 130 ft., at Arlington Ave. and William St., East Orange, N. J., for Frank Leslie, 70 Hollywood Ave., East Orange. Brick and limestone will be used in construction, with hardwood finish, interior marble and tile work, oak and maple flooring. Cost, $150,000.

WILDWOOD, N. J.—Henry L. Reinhold, Jr., Arch., 1004 Chestnut St., Philadelphia, and D. Melvin Van Horn have nearly finished plans and specifications for the new City Hall building at Wildwood, N. J., and will ask for bids soon.

HACKENSACK, N. J.—J. Riely Gordon, 402 Fifth Ave., New York, is preparing plans for a 4-story court-house for the Board of Commissioners of Bergen County, Hackensack, N. J. Stone, fireproofing, marble and tile work, structural iron and steel work will be used in the structure, which will cost $800,000. A jail building, to cost $200,000, is to be built also. Bids will be received late in the fall.

EASTON, PA.—A. A. Richter, Arch., 779 Cumberland St., Lebanon, Pa., is completing plans for the proposed 7-story bank building for the Northampton National Bank, at Easton, to cost $180,000. Bids will be received about Oct. 1.

PITTSBURG, PA.—Plans have been completed by Daniel H. Burnham & Co., Railway Exchange Bldg., Chicago, Ill., for erecting an office building for the H. W. Oliver estate on Smithfield St., which will extend from Sixth St. to Oliver Ave. Estimated cost, $2,500,000.

PITTSBURG, PA.—The following bids were received for constructing a marine hospital at Pittsburg on the Arsenal Plot, Penn Ave.: Henry Shenks & Co., Erie, Pa., $123,000; McCall Co., Philadelphia, $134,141; Noel Construction Co., of Baltimore, $126,710; Cramps & Co., Commonwealth Bldg., Philadelphia, $124,800; William Kerr's Sons, Lewis Bldg., Pittsburg, $139,600; A. & S. Wilson Co., 541 Third Ave., Pittsburg, $146,694; Nicola Building Co., Farmers' Bank Bldg., Pittsburg, $177,324, and William Miller & Sons Co., 23 Federal St., Pittsburg, $140,000.

PHILADELPHIA, PA.—The Board of Education has let contract to DAVID PEOPLES, Betz Bldg., at $181,485, for erecting the 43d Ward school building.

Cope & Stewardson, Archs., 320 Walnut St., Philadelphia, are completing plans and will invite bids soon, for the erection of a building for the College of Physicians at the corner of 22d and Ludlow Sts. The property on which the building is to be erected measures 130 × 184 ft., extending to Van Pelt St. The new building will be two stories high, 100 × 160 ft., and will be of brick with stone ornamentation. The basement of the structure will contain a museum. This will extend in height to the top of the first story, thereby allowing for the construction of galleries around the sides. The remainder of the first floor will be taken up by a directory for nurses, a lecture room, a board-room and offices. On the second floor there will be a library, a magazine room, reading rooms, workrooms, catalogue room, librarian room and an auditorium with seats for 500 persons. A mezzanine floor above will have a number of seminal rooms and other rooms. The cost of the building will be about $300,000. Of this amount $27,000 will cover the cost of the book shelves.

PHILADELFHIA, PA.—The Childs Dining Hall Co., 706 Chestnut St., are about to start work on erection of the restaurant building at 1000 Market St., Philadelphia. Cost will be about $100,000. DOYLE & CO. have contract for construction.

BELLEFONTE, PA.—Dr. Judson Welsh, Vice-Pres. of State College, has announced that Charles M. Schwab will erect an engineering building for the school that will cost $1,000,000. Preliminary drawings have been made, which have not been accepted by either Mr. Schwab or the school, and will be submitted within a few weeks. Work on the building will not be started before next summer. The proposed building will be of steel, brick and stone construction. Mr. Schwab will equip the school also.

BALTIMORE, MD.—Plans have been prepared by Jacob F. Gerwig, Arch., 11 East Lexington St., for a residence to be built on Guilford Ave., between 24th and 25th Sts. Cost, $150,000.

WASHINGTON, D. C.—Price, Bruce & De Sibour, Archs., 1135 Broadway, New York, will award contract soon for a 9-story office building, at Washington, for W. O. N. Scott, to cost $300,000.

ROANOKE, VA.—J. T. Strickland has awarded contract to C. W. HANCOCK & SONS, Lynchburg, Va., for constructing a store and office building, six stories, brick, concrete, stone and terra-cotta, fireproof. Cost, $125,000.

ATLANTA, GA.—Bids are asked until 3 p. m., Oct. 30, by James Knox Taylor, Superv. Arch., Washington, D. C., for construction of superstructure of U. S. post-office and court-house at Atlanta.

The Atlanta Auditorium-Armory Co. has awarded contract to GUDE & WALKER, Prudential Bldg., for erection of proposed auditorium and armory, four stories, brick, 200 × 300 ft., with steel roof, floors of wood and concrete where practicable. Seating capacity of entire structure, 8,500. Cost, about $200,000. Plans were prepared by Morgan & Dillon, Prudential Bldg.

JACKSON, MISS.—The Supervising Architect of the Treasury, Washington, D. C., has rejected all bids recently received for construction of an extension to the post-office building at Jackson, Miss., as being in excess of the appropriation.

NEW ORLEANS, LA.—Crosby & Henkel, Archs., have plans ready for estimates for a 6-story brick, steel and terra cotta hospital building, 93 × 77 ft., for the Delgado Hospital, to cost $200,000.

MEMPHIS, TENN.—Plans are being considered for erection of apartment hotel to contain 100 apartments. The building will have six stories. Each apartment will contain about eight rooms and bath. Cost, about $250,000. The building will have a frontage of 250 ft. Henry Weissenbach is interested.

CINCINNATI, OHIO.—We are officially advised bids will be received in October by the Board of Education for constructing a 3-story school building at Westwood. Building will be of fireproof construction, 85 × 225 ft., and will cost $160,000. Garber & Woodward, Neave Bldg., are Archs.

CINCINNATI, OHIO.—G. W. Drach, Arch., Union Trust Bldg., and G. W. Franz, Engr., are preparing plans for a hospital building, at Clifton, for the Sisters of Charity, Lock St. Ward buildings will be six in number, five stories high, 45 × 150 ft., coming to a central rotunda, five stories, 125 ft. in diameter, concrete, fireproof construction, with steam heat, open nickel plumbing, composition roof, hard plaster, electric light fixtures and terra cotta. Cost, $200,000.

YOUNGSTOWN, OHIO.—We are officially advised that bids will be received until Oct. 15 by the County Auditor for constructing a 4-story granite court-house, 236 × 136 ft. Estimated cost, $900,000. Owsley, Boucherle & Co. are Archs., Wick Bank Bldg.

CLEVELAND, OHIO.—F. S. Barnum, Arch., Bd. of Education, is preparing plans for a 3-story and basement high school, to be built at Fairchild and East 107th Sts., for the Board, Charles Orr., Dir., Rockwell and East 6th Sts. Press brick, stone or terra cotta will be used in construction, with concrete foundation and partitions, concrete fireproofing, etc. Cost, $250,000. Bids will be received by the Clerk.

HAMILTON, OHIO.—Bids were received as follows Sept. 24 at the office of the Supervising Architect of the Treasury, Washington, D. C., for construction of a post-office building at Hamilton, Ohio: John Grout & Sons, Cleveland, Ohio, $126,800, May 1, 1909; Barnes Bros. Co., Marion, Ind., $108,000, April 1, 1909.

INDIANAPOLIS, IND.—Plans and specifications are being made by D. A. Bohlen & Son, Majestic Bldg., Indianapolis, for the new Y. W. C. A. building, to be erected on the site of the old building, in North Pennsylvania St. The building will be in two sections, the front section being a 4-story building and the rear section two stories. The main or 4-story building will have a frontage in Pennsylvania St. of 85 ft. and a depth of 120 ft. The rear building will be 71 × 80 ft. Bids will be received after Oct. 1.

CHICAGO, ILL.—Jenney, Mundie & Jensen, Archs., 171 La Salle St., have awarded the general contract to the THOMPSON-STARRETT CO., 277 Dearborn St., for constructing a mercantile building, at Ohio and Franklin Sts., for the Adams Westlake Co., 110 Franklin St. Building will have seven stories, 100 × 100 ft., of brick, stone and steel construction, and will cost $125,000.

MADISON, WIS.—We are officially informed that a 4-story stone women's gymnasium is to be erected for the University of Wisconsin. Structure will be 240 × 65 ft., and will cost $150,000. Bids will be received during October or November. Arthur Peabody is State Arch.

CEDAR RAPIDS, IOWA.—Bids were received as follows Sept. 23, at the office of James Knox Taylor, Superv. Arch. of the Treasury, Washington, D. C., for the construction of an extension and remodelling of the post-office building at Cedar Rapids: G. B. Strickler, Cedar Rapids, Ia., $129,782; Northern Construction Co., Milwaukee, Wis., $138,000; General Construction Co., Milwaukee, Wis., $121,377; W. J. McAlpine, Dixon, Ill., $117,000; Bartlett & Kling, Cedar Rapids, $138,557. The time of completion is Nov. 1, 1900.

MINNEAPOLIS, MINN.—John W. Thomas & Co. will erect a building at Eighth St. and Nicollet Ave. for their own use, after designs by Harry W. Jones, Arch., Lumber Exchange, which will replace old Plymouth Church. It will have floor dimensions of 132 × 157 ft., and will be four stories high with basement. The foundation will support six stories in case it is desired to add two floors. The Thomas Building is to be fireproof, with steel frame and tile arch floor construction. Granite piers will be built in the first-story fronts. The plate glass will be set in bronze frames. The marquees and the vestibules will be of bronze. The latter will have mahogany doors, and the finish will be in mahogany. Above the first story the exterior of the building will be of gray Roman brick and terra cotta. PIKE & CO., 416 South Fifth St., Minneapolis, are the contractors.

BUTTE, MONT.—The Hennessy Mercantile Co. will expend over $300,000 for additions to its building on Main and Granite Sts. within the next few months. The Gans & Klein building, now occupied by the Hennessy Co. grocery department, and the Evans Block, will be pulled down to make way for a 6-story building, 73 ft. wide by 144 ft. deep, and built like the present store. The building alone will cost over $100,000, and will be used for store and office purposes. On Granite St. the company will expend $200,000 for an addition already half completed.

INDEPENDENCE, MO.—Plans are being prepared by Frank S. Rea, Dwight Bldg., Kansas City, Mo., for a county home for Jackson County, to have three stories, 54 × 275 ft., and to cost $225,000.

ST. LOUIS, MO.—Bids are asked until Sept. 28 for erecting a 4-story building, 45 × 150 ft., for the Knights of Columbus. Baker & Knell, Odd Fellows' Building, are Archs. Estimated cost, $110,000.

ST. LOUIS, MO.—Shisler, Bidwell Co. will erect apartment house, it is reported, to be four stories high, 230 × 74 ft., constructed of brick, stone and terra cotta. Cost, $200,000. H. Dietering, 708½ Pine St., St. Louis, is Arch.

DENVER, COLO.—Bids are asked until 3 p. m., Oct. 18, by James Knox Taylor, Superv. Arch. of the Treasury, Washington, D. C., for constructing an extension, etc., to the U. S. post-office and court-house at Denver.

The Cheesman Realty Co. is having plans drawn for erection of a 4-story office building, to cost $125,000, on California St., between 15th and 16th Sts. The building will cover four lots and will extend from about 1524 to 1538 California St. W. W. Watson is Mgr.

TACOMA, WASH.—Reed & Stern, Archs., 7 East 42d St., New York, N. Y., have completed plans for the new station for the Northern Pacific Ry. Co. to be built here. It will be two stories high, 117 × 231 ft., of reinforced concrete construction, with pressed brick and cut stone, plate glass, slate roofing, marble and tiled floors. Cost, $400,-000. A. R. Cook, Tacoma, is Div. Engr.

PASADENA, CAL.—Plans prepared by the Reeves & Baillie Co., Los Angeles, for an apartment house to be erected here call for a 4-story and basement building to be constructed of stone and rough or cast plaster. The basement will be high and will give the structure the appearance of a 5-story building. It is estimated that the cost will be about $125,000. The building will be erected on East Colorado St. by a syndicate represented by G. W. Matthews. The building will have a total frontage on Colorado St. of 150 ft., and will extend back 200 ft. The construction will be of stone up to the second-story window sills, and above that will be of rough plaster. The interior plans provide for 36 apartments, ranging from six to nine rooms each.

SAN DIEGO, CAL.—Plans and specifications have been prepared by Harrison Albright, Arch., Laughlin Bldg., Los Angeles, for the Timken Building, which will occupy the corner of Sixth and E Sts., San Diego, and which will cost $500,000. The building will have a frontage of 125 ft. on Sixth St. and 100 ft. on E St., both elevations being the same in design, and there will be six bay windows on Sixth St. and five on E St. front. The main entrance to the building is to be located on Sixth St.

SALT LAKE CITY, UTAH.—The Denver & Rio Grande R. R. Co. will expend $200,000 on the site of its proposed $[illegible],000 passenger station on the west side in Salt Lake City, it is stated. A. Ridgway, Denver, is Acting Engr. of Bridges and Bldgs.

BOISE, IDAHO.—At the corner of Eighth and Bannock Sts., Pierce & Co. will erect a business block, it is reported. It will occupy a quarter block, will be four stories in height, and will be constructed of steel and cut stone. Plans are being drawn for this building, and the work of actual construction will begin in a very short time. This block will cost between $175,000 and $200,-000.

FORT WILLIAM, ONT.—The congregation of St. Andrew's Presbyterian Church, Fort William, Ont., will erect a building at a cost of about $946,500 it is reported.

VANCOUVER, B. C.—R. Cassidy will erect a 6-story office building on Cordova St. Cost is estimated at $250,000.

VANCOUVER, B. C.—Plans for the proposed Winch Block to be erected on Hastings St. are being prepared by the architects, Hooper & Watkins, and it is expected that the building permit for the construction will be issued at once. The building will be five stories high and cost about $250,000.

WATER SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

BANGOR, ME.—We are officially advised that CHARLES N. TAYLOR, 1 Waban St., Wellesley, Mass., has been awarded contract for constructing sedimentation plant, at $46,-190. George W. Fuller, 170 Broadway, New York, is Designing Engr.; P. H. Coombs is City Engr.

NEWPORT, N. H.—The contract for laying two miles of 6 and 8-in. water mains, by which the Newport water system will be extended to Guild, has been awarded to ABLETT & BOWES, of Cohoes, N. Y., for 29½ cts. per lin. ft., all material being furnished. Arthur W. Dudley, of Manchester, N. H., is Engr.

WALLINGFORD, CONN.—The Water Commissioners have prepared a report on the increase of water by gravity supply from Pistapang Lake. Estimated cost, $38,000. J. H. Child is Engr. and Supt. of Water-Works.

BUFFALO, N. Y.—The Delaware, Lackawanna & Western R. R. Co. will construct 25,000,000-gallon reservoir for supplying water to the company's engines and East Buffalo shops. The reservoir will cover an area of 15 acres. Lincoln Bush, Hoboken, N. J., is Ch. Engr.; R. M. White, Buffalo, is Division Engr.

*NEW YORK, N. Y.—The attention of intending bidders is directed to the advertisement of the Board of Water Supply in this week's issue, requesting the bidders to look over the ground before topographical features are obscured by snow. The advertisement gives an outline of the work for which bids will soon be asked.

JUNIATA, PA.—S. S. JOHNSON, of Millersburg, Pa., has been awarded contract for laying 16,000 lin. ft. 4-in. c.-i. water pipe, together with fire hydrants, etc.

PHILADELPHIA, PA.—The Department of Public Works, John R. Hathaway, Dir., is considering the question of constructing filtration plant with daily capacity of 50,000,000 gallons on the site of the present Queen Lane Pumping Station and reservoirs. Estimated cost, $2,000,000.

PHILADELPHIA, PA.—We are officially advised that the following contracts have been let on bids received Aug. 22, by the Department of Public Works, for work and material for the Bureau of Filtration: for furnishing breeches pipe and special castings for 1907, J. K. DIMMICK & CO., Land Title Bldg.; for preliminary filters at the Torresdale Station, MILLORD CONSTRUCTION CO., Pennsylvania Bldg., $1,156,410; for Roxborough pipe extension system, Item 1, WALTER WOOD, 400 Chestnut St., $48,-884; same, Item 2, M. & J. B. McHUGH, Witherspoon Bldg.

The following contracts were let on bids received Sept. 17: for sewer connecting Upper Roxborough filters, T. F. REILLY, Harrison Bldg., $12,074; for Third St. pipe extension, Item 1, MILLORD CONSTRUCTION CO., Pennsylvania Bldg., $75,414; and for Third St. pipe extension, Item 2, MILLORD CONSTRUCTION CO., Pennsylvania Bldg., $47,545. Fred. C. Dunlap is Ch. Engr.

LANCASTER, S. C.—Estimates have been submitted by M. Sompayrae, Engr., Columbia, S. C., for constructing (A) water-works, (B) sewerage system and (C) lighting plant, as follows: (A), $25,000; (B), $12,000, and (C), $6,000.

ASHBURN, GA.—The city will vote on issuing bonds amounting to $45,000 for constructing water and electric light plant.

SAVANNAH, GA.—Bids are being received by the Savannah Water-Works Co., J. P. Figg, Supt., for laying 3,200 ft. 6-in. pipe.

ALACHUA, FLA.—The city contemplates constructing water-works system.

COLLINS, MISS.—The water and light plant may be extended. Estimated cost, $5,000.

COLUMBIA, MISS.—A water-works system will be installed.

NEWTON, MISS.—Bids are asked by the Board of Aldermen until 2 p. m., Oct. 7, for furnishing material and constructing water-works system. Xavier A. Kramer, Magnolia, Miss., Engr.

AMITE, LA.—The Council is considering the question of installing water-works.

NEW ORLEANS, LA.—The following bids were received Sept. 4 by the Sewerage and Water Board for hauling and laying approximately [illegible] miles of 4 to 30-in. c.-i. water pipe, aggregating about 26,000 tons, divided into four contracts, (a) Contract 15-W, (b) 16-W, (c) 17-W, (d) 18-W: Irwin Bros. (a), $2[illegible],789, (c) $251,595; M. O. Herron & Co. [illegible], $233,862, (c), $231,791, (d) $116,331; A. L. Patterson & Co. (b), $256,-167; General Contracting Co. (c), $242,396, (d), $113,637; The Southern Contracting Co. (a), $218,495. W. J. Hardee is City Engr.

MIDDLETON, OHIO.—The contract for furnishing c.-i. pipe, etc., has been awarded to the MASSILLON IRON & STEEL CO., Massillon, Ohio, for $36.20 per ton for 4-in. pipe, and $35.20 for 6 and 8-in.; 3 cts. per lb. for special castings.

ASHLAND, OHIO.—Bids are asked until Oct. 14 by the Board of Public Affairs for furnishing and delivering f. o. b. cars, Ashland, about 350 tons standard weight, c.-i. water pipe; digging trench and laying about 8,500 ft. water pipe; furnishing material and erecting building at pumping station; building foundations for new machinery and furnishing f. o. b. cars, Ashland, about 14,000 lbs. pig lead. F. L. Niederheiser is City Engr.

CLEVELAND, OHIO.—The Board of Public Service has awarded contract to the TOMSEN METER CO., of New York, for furnishing water meters at $30 each for 1½-in. and $50 each for 2-in. meters. E. W. Bemis is Supt. Water-Works Dept.

CRAWFORDSVILLE, IND.—Bids will soon be asked by the County Commissioners for constructing the Joseph H. Gray ditch.

PORTLAND, IND.—Philip Bergman, Drainage Comr., has awarded contract to JOHN BOYD for construction of the Goshen ditch for $3,895.

MILAN, MICH.—It has been decided to issue bonds amounting to $30,000 for constructing municipal water-works.

CHICAGO, ILL.—The contract for constructing the Lake View pumping works building has been awarded to B. M. ZADICK & CO. for $88,929. The total cost of the Lake View pumping station will amount to $303,-329, the other items being $123,000 for pumps and $91,400 for foundations.

KEWANEE, ILL.—Bids are asked until noon, Oct. 5, by J. C. Bannister, Chn. Water Com., for furnishing pumping machinery, including steel tower; walking beam, pump rods, power pump, engine, etc.

BLOOMINGTON, ILL.—It has finally been decided to construct 1½ miles of 20-in. water main. F. Fauntz is City Engr.

EAST MOLINE, ILL.—Plans for constructing water-works system are being prepared by W. H. Kimball, Engr., of Davenport, Iowa.

CENTERVILLE STATION, ILL.—Bids are asked by the Centerville Station Board until Oct. 5 for constructing ditch to drain Pittsburg Lake.

MARINETTE, WIS.—Bids are asked by the Commissioners of First Drainage District, Marinette County, until noon, Sept. 30, for constructing ditches, involving about 130,000 cu. yds. excavation.

PRIMGHAR, IOWA.—Bids are asked until Oct. 10 by W. H. Downing, Town Clk., for construction of water-works. M. Tschirgi & Son, Bank and Insurance Bldg., Dubuque, Iowa, are Engrs.

FOUNTAIN, MINN.—It has been decided to extend the water-works system.

DETROIT CITY, MINN.—Bids are asked until Sept. 30 by the Water and Light Committee, Chas. G. Sturtevant, Clk., for erection of 100,000-gallon, 50-ft. steel water tower and tank and laying 600 to 1,000 ft. of 8-in. water main and installing one hydrant.

MAHNOMEN, MINN.—Bids are asked until Sept. 30 by A. O. Vachan, Recorder, for constructing water tank and tower and water system for fire protection.

THIEF RIVER FALLS, MINN.—ARPIN BROS., of this city, have secured contract for constructing state drainage ditches Nos. 47, 48, 49 and 50, north of Thief River Falls, at about $30,000. The work consists of about 180,000 cu. yds. excavation.

GARNETT, KAN.—Bids are asked by L. D. Pilkington, City Clk., until Oct. 1 for furnishing valves, pipe and connections for the water plant. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

BEAVER CITY, NEB.—Bids are asked by W. L. Leonard, City Clk., until Sept. 30 for furnishing and laying water mains.

FARGO, N. DAK.—Bids are asked by the Board of County Commissioners until noon, Oct. 9, for constructing pneumatic water plant at the County Hospital. Arthur G. Lewis is County Audr.

SAN ANTONIO, TEX.—We are officially advised that the Alamo Heights Co. is in the market for a water system, the water to be obtained from deep wells. W. B. Willun, Secy., 221 East Houston St., San Antonio.

FAIRLAND, TEX.—J. S. Armstrong and associates, interested in the Highland Park addition, are considering plans for installation of water-works.

NIXON, TEX.—Robert F. Nixon, of Gonzales, Tex., will drill artesian well with view of establishing water-works system.

IDAHO SPRINGS, COLO.—The City Council has awarded contract to THOMPSON & WILKIN for constructing 60,000,000-gallon reservoir on Chicago Creek for $20,000.

TORONTO, ONT.—The ratepayers recently voted in favor of spending $743,000 for extensions of water-works. C. H. Rust is City Engr.

ROSWELL, N. MEX.—At a special election held Sept. 16 the question of issuing bonds amounting to $125,000 for constructing water-works was defeated. Fred. J. Beck is City Clk.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

MALDEN (Boston post-office), MASS.—The Finance Committee contemplates granting an appropriation of $20,000 for constructing sewers.

SALEM, MASS.—Bids are asked until Oct. 2 by the Sewerage Commisisoners, Thos. G. Pinnock, Chn., for constructing Secs. 1, 2, 3 and 4 of South Salem trunk sewer with brick, or reinforced concrete masonry, requiring about 6,913 lin. ft. 34, 36, 38, 42 and 48-in. sewer.

TROY, N. Y.—We are officially advised that A. H. CHASE, 3 Franklin sq., Troy, has been awarded contract for constructing 665 lin. ft. of 20-in. vitrified salt-glazed pipe sewer in De Freest ave. at $2.98 per ft., exclusive of manholes, etc. The contract for laying 2,000 lin. ft. 20-in. vitrified salt-glazed pipe sewer in Stowe ave. has been awarded to P. S. CAVANAUGH, 90 Ninth st., Troy, at $2.85 per ft., exclusive of manholes, etc. E. R. Cary is City Engr.

ROME, N. Y.—Bids are asked by James A. Douglas, Pres. Bd. of Mgrs. Rome Custodial Asylum, until noon of Oct. 7, for installing sewage disposal plant at the asylum; also, for laying tile floor. George L. Heins, Albany, is State Arch.

SEA CLIFF, L. I., N. Y.—The Village Improvement Association is considering the question of constructing sewage disposal system.

PERTH AMBOY, N. J.—MARTIN HANSEN has been awarded contract for constructing sewers in Hall Ave. and Penn St.

BAYONNE, N. J.—The Council has awarded contract to MARTIN MURRAY for constructing the 15th St. sewer at $27,042. F. W. Dalrymple is City Engr.

*ENGLEWOOD, N. J.—Bids are asked by the Englewood Sewerage Co., Englewood, until 3 p. m., Oct. 5, for constructing about 6,590 lin. ft. 12-in. pipe sewer. Oliver Drake Smith is Secy.

BUTLER, PA.—The Council has decided to construct storm sewer in Short St.

NORTH BRADDOCK (Braddock post-office), PA.—Bids are asked by C. A. Stewart, Boro. Engr., until 3 p. m., Oct. 3, for constructing about 650 ft. 12-in., 480 ft. 8-in. and 200 ft. 6-in. pipe sewers, together with three lamp holes, six manholes and four catch basins.

BADEN, PA.—The THOMAS SWEENEY CO., of Pittsburg, have been awarded contract for constructing 18,600 ft. of 15, 12 and 8-in. sanitary sewer at $10,545.

PHILADELPHIA, PA.—We are officially advised that T. F. REILLY, Harrison Bldg., has contract to construct sewer connecting the Upper Roxborough filters. Bids were received Sept. 17, by the Bureau of Filtration, Dept. Pub. Wks. Fred. C. Dunlap is Ch. Engr.

BALTIMORE, MD.—The Forest Glen Land Co., B. Wood Burch, Pres., 441 Equitable Building, will build sewerage system for suburban property.

OXFORD, N. C.—BOSLER & FLYNN, of Chattanooga, Tenn., have been awarded contract for constructing about ten miles of sewers.

LANCASTER, S. C.—See under Water Supply—Irrigation.

*CHATTANOOGA, TENN.—Bids are asked by the Board of Public Works, H. F. Van Dusen, Chn., until 2.30 p. m., Oct. 15, for constructing brick main sewer and appurtenances on Chestnut St., from Tennessee River to the center of Ninth St. The approximate quantities are as follows: 465 ft. 36 × 54-in., 465 ft. 38 × 57-in., 468 ft. 42 × 63-in., 466 ft. 46 × 69-in. and 2,032 ft. 50 × 75-in. egg-shaped sewer and 175 ft. 60-in. circular sewer. Robert Hooke is City Engr.

LEIPSIC, OHIO.—F. R. STONE, of Lima, has been awarded contract for constructing sewers for $6,000.

*STEUBENVILLE, OHIO.—Bids are asked by the Board of Public Service, T. W. Vance, Clk., until noon, Oct. 14, for furnishing material and constructing 232 ft. 36-in., 1,126 ft. 30-in. brick sewer and 1,721 ft. 12 to 24-in. pipe sewer.

BATAVIA, OHIO.—Sewers will probably soon be constructed. Estimated cost, $5,725. G. H. Hain is Village Clk.

FOSTORIA, OHIO.—A 7-in. tile sewer will be constructed in Cleveland St.

SPRINGFIELD, OHIO.—The Board of Public Service has awarded contract to DOYLE & CAFFERY for constructing sewer in Grand Ave.

ZANESVILLE, OHIO.—The Board of Public Service has awarded contract for constructing sewer on Westbourne Ave. to ADAMS BROS., at $1.25 per ft.

NORWALK, OHIO.—The following bids have been received by the Board of Public Service for laying storm and sanitary sewers from St. Mary's St. to site of proposed sewage disposal works: Municipal Engineering Co., of Akron, Ohio, concrete, $27,021; H. W. Matthews, Lorain, Ohio, concrete, $32,111; Cummerford & Quinn, Norwalk, concrete, $24,890; brick, $24,800; Penny & Corron, Lorain, Ohio, concrete, $24,285; brick, $30,216.

CINCINNATI, OHIO.—The only bid received Sept. 12 by the Board of Public Service, M. J. Keefe, Clk., for constructing Enright Ave. sewer was submitted by Thomas P. Strach, Goodall Bldg., at $77,480. C. N. Dannenhower is City Engr.

CINCINNATI, OHIO.—The Board of Public Service has let contract for constructing sewer on Price Hill to THOMAS P. STRACK for $77,480. Charles N. Dannenhower is Ch. Engr. Bd. Pub. Service.

LINTON, IND.—Bid are asked by the City Council until 4 p. m. Oct. 7, for construction of sanitary system of sewers; aggregated length, 13 miles. Frank Spelbing is City Clk.

DECATUR, IND.—Bids are asked by the Common Council until 7 p. m., Sept. 30, for constructing the John M. Lenhart sewer. Carl O. France is City Clk.

CAIRO, ILL.—Bids will soon be asked for constructing about 40,000 lin. ft. of sewers. W. B. Thistlewood is City Engr.

JOLIET, ILL.—Plans are being prepared for constructing First Ward trunk sewerage system. Estimated cost, $31,000. H. A. Stevens is City Engr.

EAST ST. LOUIS, ILL.—A sewerage system costing about $780,000 will be constructed. Charles S. Lambert is City Clk. W. J. Crocken is City Engr.

CEDAR RAPIDS, IOWA.—Bids are asked until Sept. 30 for constructing about 2,550 lin. ft. 7-in. 3-ring brick sewer on Twelfth and Twenty-first Aves., W., 84 in. diam. T. R. Warriner is City Engr.

WELLINGTON, KAN.—Plans and specifications for constructing sanitary sewerage system are being prepared by H. A. Rowland, of McPherson, Kan.

DRAYTON, N. DAK.—Bids are asked by C. L. Fairchild, City Audr., until 5 p. m., Sept. 30, for constructing sewerage system.

BOZEMAN, MONT.—The lowest bid received Sept. 5 for constructing pipe sewers was submitted by E. T. Rich, of this city, at $19,861. A bid was also received from C. Lundwall, of Bozeman, at $20,465. C. M. Thrope is City Engr.

CARTHAGE, MO.—Bids are asked until Oct. 14 for furnishing material and constructing complete 3,258 ft. of 8-in. and 410 ft. 10-in. sewers, with manholes, flushtanks, etc. Wm. Kohlman is City Engr.

CAMDEN, ARK.—The contract for constructing sewer in Sewer District No. 2 has been awarded to the PAMERY PAVING & CONSTRUCTION CO., of Helena, Ark., for $6,260.

WICHITA FALLS, TEX.—A sewerage system will be constructed. Estimated cost, $40,000.

DENVER, COLO.—The following bids were received Sept. 11 by the Board of Public Works, J. B. Hunter, Ch. Engr., for constructing sewers: Sanitary sewer system in Sub-Dist. 8 of the East Side Sanitary Sewer Dist. 1: NATIONAL CONSTRUCTION CO., $111,363 (awarded contract), Denver & Pueblo Construction Co., $124,440; Gaffey & Keefe Construction Co., $144,816, all of Denver. Morgan's Capitol Hill special sanitary sewer system: DENVER & PUEBLO CONSTRUCTION CO., $3,232 (awarded contract); Terrance Connoly, $3,421; National Construction Co., $3,578, all of Denver.

SEATTLE, WASH.—Bids are asked by C. B. Bagley, Secy. Bd. Pub. Wks., until Sept. 28, for constructing sewers in various streets. Estimated cost, $23,477. R. H. Thomson is City Engr.

All bids received Sept. 7 for constructing Green Lake District of the North Trunk sewer have been rejected. New bids are asked by the Board of Public Works, C. B. Bagley, Secy., until Oct. 12.

OAKLAND, CAL.—Bids are asked by John P. Cook, Clk. Bd. County Supervs., until 10 a. m., Sept. 30, for constructing storm sewer in Yoakum Ave., Brooklyn Township.

GARBAGE DISPOSAL.

(* *denotes that this work is advertised in Engineering News.*)

BALTIMORE, MD.—The following bids have been received by the Board of Awards for purchase of the reduction plant of the Baltimore Sanitary Contracting Co. and for removal of the plant outside the city limits, and for reducing the city garbage: The Southern Product Co., $71,000, $74,000, $77,-000, $80,000, $83,000, $86,000, $89,000, $92,000, $95,000 and $98,000; David Peoples Co., Philadelphia, Pa., $80,000, $83,000, $86,000, $89,-000, $92,000, $95,000, $98,000 $101,000, $104,-000 and $107,000. The figures given are per year from one to ten years respectively. The Southern Product Co. bid $100,000 for the reduction plant and the David Peoples Co. $50,000. The garbage is to be gathered by the city and collected at central points and taken in scows to the reduction plant and reduced by the successful bidder.

NEWPORT, KY.—The Council has awarded to the SEWELL & PARDINGTON CO. the contract for disposing of the city's garbage at $166.66 per month for a period of six months.

EVANSVILLE, IND.—The Board of Public Works has awarded contract to the ST. LOUIS GARBAGE BOX CO. for constructing night soil consuming plant. Estimated cost, $40,000.

BUTTE, MONT.—The Judiciary Committee has reported to Council recommending that the City Clk. be directed to invite estimates and suggestions from companies manufacturing and building garbage incinerating plants to take care of at least 100 tons of garbage per day.

BERKELEY, CAL.—Bids are being received by the City Clerk for constructing garbage disposal plant.

STREETS AND ROADS.

(* *denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—An additional contract for laying 1,782 sq. yds. of bitulithic pavement has been awarded the WARREN BROTHERS CO., 93 Federal St., Boston Mass.

*WESTFIELD, MASS.—Bids are asked by the Town Selectmen until noon, Oct. 2, for laying about 1,200 sq. yds. brick pavement on Arnold St. Oren E. Parks is Town Engr.

FT. ADAMS (Newport post-office), R. I.—Bids are asked by Capt. Willis C. Metcalf, Q. M., until 10 a. m., Oct. 1, for repairing roads and constructing gutters, curbs, etc., at Ft. Adams.

DEEP RIVER, CONN.—The Town Board has decided to spend $20,000 in road improvements.

BRISTOL, CONN.—The lowest bid received for improving Farmington Ave. was submitted by the Pierson Engineering & Construction Co., at $7,730.

*HARTFORD, CONN.—Bids are asked by the Board of Contract and Supply, James P. Berry, Secy. pro. tem., until 11 a. m., Oct. 7, for laying about 7,000 sq. yds. asphalt pavement on concrete base on portion of Asylum St. F. L. Ford is City Engr.

NEW HAVEN, CONN.—The WARREN BROTHERS CO., 93 Federal St., Boston, has been awarded contract for constructing 27,-120 sq. yds. of bitulithic pavement.

NEW BRITAN, CONN.—A contract for laying 3,500 sq. yds. bitulithic pavement has been awarded to the WARREN BROTHERS CO., 93 Federal St., Boston.

NEW YORK, N. Y.—Bids are asked by the Department of Parks, Samuel Parsons, Jr., Pres., until 3 p. m., Oct. 3, for repairing roadways on Glenmore Ave. and Eastern Parkway extension and for resurfacing walks in Prospect Park, Boro. of Brooklyn.

Bids are asked by Bird S. Coler, Pres. Boro. of Brooklyn, until 11 a. m., Oct. 2, for regulating grading, paving, etc., portions of various streets, Boro. of Brooklyn.

Bids are asked by Joseph Bermel, Pres. Boro. of Queens, until 11 a. m., Sept. 30, for regulating, grading, paving, etc., portions of various streets, Boro. of Queens.

NEW YORK, N. Y.—Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, Oct. 8, for furnishing and delivering 1,400 tons 1½-in. broken stone and screenings of trap rock or Staten Island syenite on portions of Bodine, Dongan, Taylor Sts. and Davis Ave., West New Brighton, Boro. of Richmond.

Bids are asked by the Department of Parks, Moses Herrman, Pres., until 3 p. m., Oct. 3, for regulating grading, laying walk pavement of Portland cement, etc., upon and adjacent to the site of the old engine house in City Hall Park.

NEW YORK, N. Y.—Bids are asked by Bird S. Coler, Pres. Boro. of Brooklyn, until 11 a. m., Oct. 9, for regulating, grading, paving, etc., portions of various streets, Boro. of Brooklyn.

ALBANY, N. Y.—The following additional contracts for improvement of state highways have been awarded by Frederick Skene, State Engr. and Surv.: STEWART-KERBAUGH-SHANLEY CO., 527 Fifth Ave., New York: Road 405, Kitchawan-Croton Lake, Westchester County, 2.12 miles, $14,788; Road No. 519, Mt. Kisco-Pleasantville, Westchester County, 3.91 miles, $39,653; Road No. 535, Cortland-Dryden, Sec. 2, Cortland County, 2.20 miles, $20,020; Road No. 552, Rhinebeck-Elizabeth, Dutchess County, 5.94 miles, $49,596; Road No. 520, Pleasantville-Pocantico Hills, Westchester County, 3.55 miles, $31,823.

H. C. SCHROEDER, 394 South Ave., Rochester, N. Y., Road No. 320, Reservation Road-Fayette, Seneca County, 5.72 miles, $45,743.

ROBERTSON & GERHART CONSTRUCTION CO., New York, Road No. 508, Selkirk-Coeymans, Albany County, 4.77 miles, $38,-646.

RUSSELL CONTRACTING CO., Road No. 437, Jerusalem Ave.-Front St., Nassau County, 7.09 miles, $70,357.

MALLOY & DAVIS, Schenectady, N. Y., Road No. 640, Rotterdam-Junction-Pattersonville, Schenectady County, 3.97 miles, $28,-717.

ALBANY, N. Y.—The only bid received Sept. 16 by the Board of Contract and Supply for furnishing 16,000 asphalt blocks for paving South Pearl St. was submitted by the Hastings Paving Co., of Hudson, N. Y., at $69 per M. Walter Melius is City Engr.

BAYONNE, N. J.—The Council has awarded contract to MARTIN MURRAY for paving Twelfth St. for $10,092. The EASTERN PAVING & CONSTRUCTION CO. has secured contract for paving portion of Andrew St. for $11,128. F. W. Dalrymple is City Engr.

HOBOKEN, N. J.—The lowest bid received by the Council for improving Broadway was submitted by John Callery, at $7,808.

HAZLETON, PA.—Spruce Alley will soon be paved. Estimated cost, $5,000.

WASHINGTON, PA.—The FORT HENRY CONSTRUCTION CO., Wheeling, W. Va., has been awarded contract for construction of 3,700 ft. of macadamized state road from the Gabby School to Dam No. 4 of the Citizens' Water Co.

SHARPSVILLE, PA.—BOMBECK & MILLER, of this city, have been awarded contract for paving Main and Walnut Sts. with vitrified fire brick for about $20,000.

READING, PA.—The following contracts have been awarded: FEHR & O'ROURKE, vitrified shale block pavement on Fifth St., at $10,977; also vitrified brick on Schuylkill Ave., at $6,678; vitrified shale block on Greenwich St. at $3,539, vitrified shale block on Chestnut St. at $3,756, vitrified shale block on Cotton St. at $9,087, vitrified shale block on Eighth St. at $3,280. SAMUEL BOBST and JAMES DANBRISH, granite block pavement on Poplar St. at $3,604.

BALTIMORE, MD.—The Board of Awards has awarded contract for paving Wilkens Ave., from Bentalou St. to the city limits, with sheet asphalt to WILLIAM L. ELDER for $80,841. P. FLANNIGAN & SON have secured the contract for macadamizing Kate Ave., between Park Heights and Garrison Aves., for $17,881.

WASHINGTON, D. C.—Bids were received as follows Sept. 21 by the District Commissioners for laying cement sidewalks within the district: Colburn Bros., Washington, (a)

$1.05 per sq. yd.; (b) $1.18; Cranford Paving Co., Washington, (a) $1.139; (b) $1.19; R. J. Beall Construction Co., Washington, (a) $1.075; (b) $1.145; Rudolph S. Biome, Washington, (a) $1.19; (b) $1.32.

PORTSMOUTH, VA.—Bids are asked by the Street Commissioners, E. B. Hawks and S. T. Montague, Chairmen, until Sept. 30, for furnishing 100,000 bricks for improving sidewalks. Bascom Sykes is City Engr.

PETERSBURG, VA.—The Council has decided to pave Washington St. with vitrified block. Estimated cost, $5,700.

GASTONIA, N. C.—The ATLANTIC BITULITHIC CO. of Richmond, Va., has been awarded contract for laying 10,000 sq. yds. of bitulithic pavement.

CHARLOTTE, N. C.—A contract for laying 44,000 sq. yds. of bitulithic pavement has been awarded to the ATLANTIC BITULITHIC CO. of Richmond, Va.

OCALA, FLA.—Bids are asked by the City Council, J. D. Robertson, Pres., until Oct. 15, for laying 14,901 sq. yds. vitrified brick pavement. S. Sistrunk is City Clk.

PALATKA, FLA.—Bids are asked until Oct. 8, for laying about 25,000 sq. yds. vitrified brick paving and 10,000 lin. ft. granite curbing. J. E. Craig is City Engr.

HATTIESBURG, MISS.—We are officially advised that proposed street work in Hattiesburg, amounting to about $7,500 will be under supervision of the Huston Engineering Co., Macheca Bldg., New Orleans, La.

LAKE CHARLES, LA.—The WEST CONSTRUCTION CO., of Chattanooga, Tenn., has been awarded contract to lay 16 miles of street pavement and 16 miles of sidewalks.

LOUISVILLE, KY.—Bids will soon be asked by the Board of Public Works for laying asphalt pavement on portions of Garvin Pl. and Broadway. Estimated cost, $23,000. Joseph P. Claybrook is City Engr.

LEXINGTON, KY. — The HOME CONSTRUCTION CO. has been awarded contract to macadamize Clay Ave. from Main to High Sts. P. P. O'Neill is City Engr.

MANSFIELD, OHIO. — MACGLEDHILL, Mansfield, has been awarded contract for constructing Climax Pike road at $18,397.

COLUMBUS, OHIO.—The Board of Public Service has awarded contract for improving portion of Gift St. to BALDWIN BROS. & GRAHAM, for $27,049. Henry C. Maetzel is City Engr.

BATAVIA, OHIO.—Cement sidewalks will soon be laid on various streets. Estimated cost, $5,721. G. H. Hain is Village Clk.

CLEVES, OHIO.—Bids will probably soon be asked for improving Miami Ave., State, Howell and other streets. D. W. Gwaltney is Village Clk.

MADISONVILLE (Cincinnati post-office), OHIO.—Bids are asked by the Village Council until noon, Oct. 2, for constructing cement sidewalk on both sides of Home Ave., from Clason St. to Bramble Ave. J. A. Conant is Village Clk.

CINCINNATI, OHIO.—The following bids were received Sept. 13 by the Board of Public Service, M. J. Keefe, Clk., for paving Glenway Ave. with wood block: The Kirchner Construction Co., Glenn and Eighth Sts., $135,017; U. S. Wood Preserving Co., 707 Mercantile Library Bldg., $135,128 and Russel & Janison, 1501 First National Bank Bldg., $135,658. C. N. Dannenhower is City Engr.

Bids were received Sept. 11 by the Board of Public Service as follows for improving (A), Townsend St. with brick, (B), Tremont St. with brick and (C), Kirby Ave. with granite blocks: (A), A. J. Henkel & Bro., 703 Mercantile Library Bldg., $5,506; Wm. T. Flyn, 1252 Chase Ave., $5,594; Connelly Construction Co., 254 West Ninth St., $5,516; O. E. Robinson, 4649 Hamilton Ave., $5,402. (B), A. J. Henkel & Bro., 703 Mercantile Library Bldg., $19,792; Connelly Construction Co., 254 West Ninth St., $19,781; M. Sullivan & Son, 703 Mercantile Library Bldg., $19,574. (C), T. F. McClure & Sons Co., 42 Term. Bldg., $34,992; Kirchner Construction Co., Eighth and Olive Sts., $34,735; A. J. Henkel & Bro., 703 Mercantile Library Bldg., $36,254; M. Sullivan & Sons, 703 Mercantile Library Bldg., $35,799; Wm. T. Flyn, 1252 Chase Ave., $37,049; John Rubble & Bro., 56 Atlas Bank Bldg., $36,979.

CINCINNATI, OHIO.—The following bids were received Sept. 11 by the Board of Public Service for improving (A), Clinton St. with asphalt and (B), Ninth St. with wood block: (A), Barber Asphalt Paving Co., 169 First National Bank Bldg., $27,364; Kirchner Construction Co., Eighth and Plum Sts., $27,118; (B), Russell & Jamieson, 1501 First National Bank Bldg., $28,125; U. S. Wood Preserving Co., $27,755; Kirchner Construction Co., Eighth and Plum Sts. $27,445; Wm. T. Flyn, 1252 Chase Ave., $28,095.

The following bids were received Sept. 13 by the County Commissioners, Fred Driehs, Clk., for improving portion of Reading Pike: Peter Trechter, Norwood, Ohio, $83,800; M. Sullivan & Son, Mercantile Library Bldg., $86,389; John Ryan, Cincinnati, $86,850; Louis Drach Construction Co., 25 Guardian Title & Trust Bldg., $85,040; J. M. Hassell, Sharonville, Ohio, $81,557, and A. J. Henkel & Bro., Mercantile Library Bldg., $85,316. Clinton Cowan is County Surv.

CINCINNATI, OHIO.—Bids were received Sept. 13 by the Board of Public Service for improving (A), Arlington St. with brick; (B), Mt. Vernon Ave., macadam and (C), Fairview Ave., asphalt and granite: (A), A. J. Henkel & Bro., 703 Mercantile Library Bldg., $8,510; Connelly Construction Co., 254 West Ninth St., $9,123; O. E. Robinson, 4649 Hamilton Ave., $9,088. (B), B. Niehaus, 39 Corry St., $8,367; M. Sullivan & Son, 703 Mercantile Library Bldg., $8,630; George P. Walker, 231 Carlisle Bldg., $8,795; A. J. Henkel & Bro., 703 Mercantile Library Bldg., $8,255. (C), Kirchner Construction Co., Eighth and Plum Sts., $34,532; Barber Asphalt Paving Co., 1603 First National Bank Bldg., $34,752.

FRANKFORT, IND.—A contract for laying 15,000 sq. yds. of bitulithic pavement has been awarded to the WESTERN CONSTRUCTION CO. of Lafayette, Ind.

NEWCASTLE, IND.—The WESTERN CONSTRUCTION CO. of Lafayette, Ind., has received contract for laying 15,227 sq. yds. of bitulithic pavement.

*GARY, IND.—Bids are asked by the Board of Trustees, C. O. Holmes, Clk., until 3 p. m., Oct. 5, for grading, paving, curbing, etc., portions of South Broadway and Madison St.

CRAWFORDSVILLE, IND.—Bids are asked by the County Commissioners until 1 p. m., Oct. 8, for constructing the Sutherlin Road in Brown Township, 13,253 ft. in length. B. F. Carmin is County Clk.

SPENCER, IND.—Bids are asked by the County Commissioners until noon, Oct. 2, for constructing 6,176 ft. of gravel road in Jennings Township. George O. Milten is County Audr.

FT. WAYNE, IND.—Bids are asked by the County Commissioners until 10 a. m., Oct. 12, for constructing 6,020 ft. of macadamized road in Monroe Township. George W. Lindemuth is County Audr.

LOGANSPORT, IND.—Bids are asked by the Cass County Commissioners until noon, Oct. 21, for constructing the Rice Road on line between Cass and Carroll Counties. George W. Cann is Audr. of Cass County.

MONTICELLO, IND.—Bids are asked by the County Commissioners until noon, Oct. 8, for constructing gravel road in Prairie Township. J. L. Ackerman is County Audr.

SALEM, IND.—Bids are asked by the County Commissioners until 1.30 p. m., Oct. 7, for constructing gravel roads aggregating 30,898 ft. in length. S. G. Ellis is County Audr.

SHELBYVILLE, IND.—Bids are being received by H. J. Clark, City Clk., for constructing cement sidewalks, curbing and gutters on various streets.

EVANSVILLE, IND.—Bids are asked by the Board of Public Works until Sept. 28 for grading and paving Fountain Ave. W. F. Wunderlich is City Clk.

Bids are asked by the Board of County Commissioners until 2 p. m., Oct. 3, for constructing the Henderson gravel road in Union Township. Harry Stinson is County Audr.

DANVILLE, IND.—Bids will soon be asked by the County Commissioners for constructing gravel road in Clay Township.

BLUFFTON, IND.—Bids are asked by the Board of County Commissioners until 10.30 a. m., Oct. 9, for constructing two gravel roads in Jefferson and Lancaster Townships. C. D. Brineman is County Audr.

PORTLAND, IND.—Bids are asked by the County Commissioners until 2 p. m., Oct. 8, for constructing 15 gravel roads.

ROCKVILLE, IND.—Bids are asked by the County Commissioners until 1 p. m., Oct. 8, for constructing gravel road in Adams Township and macadamized road in Florida Township. H. A. Henderson is County Audr.

MARTINSVILLE, IND.—Bids are asked by the County Commissioners until 2 p. m., Oct. 8, for constructing two gravel roads in Washington Township.

PETERSBURG, ILL.—The City Council has awarded contract for constructing cement sidewalks to E. L. GOODMAN & SONS at 12 cts. per ft.

FREEPORT, ILL.—WILLIAM ASCHER has been awarded contract for paving, guttering, curbing, etc., at $70,967. The only other bid received was submitted by M. Ford, at $72,222. G. W. Graham is City Engr.

NORTH CHICAGO, ILL.—The only bid received Sept. 17 by the Bureau of Navigation, Washington, D. C., for grading at the new Naval Training Station, North Chicago, was submitted by Edward Bros. Dredging Co., Sault Ste. Marie, Mich., at 81 cts. per cu. yd.

BRUSSELS, ILL.—Bids are asked by the Village Board, S. Fortschneider, Clk., until 7 p. m., Oct. 5, for laying about 3,500 sq. yds. granitoid sidewalks.

CHICAGO, ILL.—A contract for laying 72,623 sq. yds. of bitulithic pavement has been awarded to the CHICAGO BITULITHIC CO. by the South Park Commissioners, at $1.90 per sq. yd., exclusive of excavation; surfacing macadam foundation of Michigan Ave. Boulevard from 22d to 39th Sts., 33d St. from Michigan Ave. Boulevard to South Park Ave., and South Park Ave. from 33d to 35th Sts.

SUPERIOR, WIS.—Bids are being received by the Board of Public Works for paving portions of Winter St.

ST. LOUIS, MO.—Bids are asked by the Board of Public Improvements, W. B. Dryden, Secy., until noon, Oct. 8, for grading, paving, curbing, etc., portions of various streets. C. M. Talbert is Ch. Engr., Bd. Pub. Impvts.

KIRKSVILLE, MO.—The City Council has let contract for paving Franklin St. to S. L. EGGERT, of this city, for $41,596.

PALESTINE, TEX.—Bonds amounting to $50,000 will be issued for street, paving, etc.

GUTHRIE, OKLA.—BILLINGS & SNYDER, Guthrie, have been awarded contract for laying blocks 2-course brick paving with sand filler at $1.81 per yd.

SEATTLE, WASH.—Bids are asked by C. B. Bagley, Secy. Bd. Pub. Wks., until Sept. 28, for grading, paving, etc., portions of various streets. Estimated cost, $181,440. R. H. Thomson is City Engr.

PORTLAND, ORE.—A contract for laying 16,997 sq. yds. of bitulithic pavement has been awarded to the WARREN CONSTRUCTION CO., of Portland, Ore., and another of 25,814 sq. yds. to the PACIFIC BRIDGE CO.

SALEM, ORE.—The WARREN CONSTRUCTION CO. of Portland, Ore., has been awarded contract for laying 9,277 sq. yds. of bitulithic pavement.

OTTAWA, ONT.—Bids are asked until Oct. 16 by N. J. Ker, City Engr., for constructing asphalt and bituminous paving plant.

TORONTO, ONT.—The WARREN BITUMINOUS PAVING CO. of Toronto has been awarded contract for laying 12,147 sq. yds. of bitulithic pavement.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

EUSTIS JUNCTION (Rangeley post-office), ME.—The American Enamel Co., of Providence, R. I., will construct second mill for production of birch enamels at Eustis Junction.

WOONSOCKET, R. I.—The Lawton Spinning Co., of this city, will construct mill equipped with 25,000 spindles. Estimated cost, $900,000.

NEW BRITAIN, CONN.—The Union Mfg. Co., New Britain, Conn., manufacturer of chucks, planes, etc., will immediately erect factory building.

BUFFALO, N. Y.—The Contractors Casting & Machine Co., of this city, will build a 40 × 140 ft. addition to its present foundry building at Hertel and Elmwood Aves. and the Erie R. R. tracks, making a structure 140 × 140 ft., the present building being 100 × 140 ft.

The Riverside Malting Co. has awarded contract to the STEEL STORAGE & ELEVATOR CONSTRUCTION CO., 308 Prudential Bldg., Buffalo, for erection of reinforced concrete elevator at an approximate cost of $50,000 and an additional malt-house of brick at a cost of $30,000, to be located at 2204-2212 Niagara St., with frontages on the Erie Canal and on an industrial branch of the Erie R. R.

NIAGARA FALLS, N. Y.—The Canadian Bolt & Nut Works, Niagara Falls, is doubling capacity of its plant at Cayuga Ave. and 24th St. by erection of a machine shop 40 × 200 ft.

BRADDOCK, PA.—The ACME TOOL & MFG. CO., Braddock, will erect plant 50 × 100, 2-story.

JEANNETTE, PA.—F. E. Gatterdam, 163 Randolph St., Chicago, Ill., has prepared plans for erecting brewery, bottling house, office and stable at Jeannette, Pa., for the International Brewing Co., of this city. Brewery to be five stories, 115 × 175 ft., built of press brick, with stone trimmings, and iron and steel construction, composition roof, concrete and asphalt floors, electric wiring, nickel plumbing; annual capacity, 75,000 bbls. Cost, $400,000.

PHILADELPHIA, PA.—Harrison C. Rea, 1815 Francis St., has been granted permit to erect factory for the Theobald & Oppenheimer Co., at Fourth and Cambria Sts. The building is to be of brick and stone, five stories high, 168 × 112 ft. Chas. Balderston, 411 Walnut St., is Arch. Cost, $100,000.

McKEES ROCKS, PA.—The Shoen Steel Wheel Co. is having plans prepared for constructed open-hearth steel plant and for a finishing and blooming mill. Estimated cost, $1,500,000.

WILKES-BARRE, PA.—The Wilkes-Barre Silk Dyeing & Mercerizing Co. will construct factory and headquarters at Lee Park.

BALTIMORE, MD.—It is the intention of the Simson-Doeller Co., Lanvale St. and Milton Ave., Baltimore, to erect a fireproof printing plant.

RICHMOND, VA.—The Schlitz Brewing Co., Milwaukee, Wis., will establish bottling plant in Richmond. Plans have been completed by Herchoff & Rose, Milwaukee, Wis., for erection of 2-story building, 175 × 90 ft.; first floor of which will be equipped with bottling machinery, refrigerators, pasteurizers, etc. Joseph H. Haufman is Local Mgr.

SALEM, VA.—The Cooper Glass & Silica Co., incorporated with capital stock of $200,000, will erect metal building, 150 × 150 ft., to manufacture 300 gross glass bottles daily. G. R. Ragan is Arch. Walter Watson is Engr. T. H. Cooper and L. A. Scholz, Roanoke, Va., are interested. Cost, $50,000.

WHEELING, W. VA.—The La Belle Iron Works has increased capital stock from $7,500 to $10,000. The company contemplates erecting additional furnaces and mills and a Bessemer steel plant. Isaac M. Scott is Pres.

PADEN CITY, W. VA.—The Pittsburg Chain & Forge Co., Frick Bldg., Pittsburg, Pa., has begun work on concrete foundations for plant to be erected here. Plans have been prepared for erection of ironclad building, 60 × 200 ft., to be used for the manufacture of all sizes of hand-made chains exclusively for crane and dredge service. Building will be fitted throughout with ventilators, revolving door and windows, and equipped with power plant, consisting of gas engine and generator for making light and furnishing power for motor-driven machinery, including 200,000-lb. testing machine, forges, etc. An air and ventilating system will be installed, and railroad tracks running through the center will provide facilities for receiving materials and shipping products. Structure will be completed by Jan. 1, and give employment at first to 100 men. Company will also erect building, 50 × 80 ft., which will be equipped with coke-crushing machinery, and another structure, 75 × 300 ft., in which heavy steam hammers and other devices will be installed for making drop forgings. Schlieper Engineering Co., Wabash Bldg., Pittsburg, Pa., will supervise engineering work.

CHICKAMAUGA, GA. — The Crystal Springs Bleachery Co. has had plans prepared for construction of buildings for proposed bleachery. Main building, 470 ft. long, 156 ft. will be three stories high, 156 ft. two stories high and 58 ft. one story high; width 80 ft., and at 3-story end will be addition extending 60 ft. to the right, three stories high; power-house, 30 × 60 ft., to be equipped with electrical machinery for furnishing power and lights. D. A. Jewell is Pres., Chattanooga, Tenn. Estimated cost, $100,000.

PENSACOLA, FLA.—The Bureau of Yards and Docks, Navy Department, Washington, D. C., has awarded contract to H. A. BISHOP, 218 La Salle St., Chicago, for construction of paint shop and locomotive shed at the navy yard, Pensacola, Fla., at $29,000.

ARCHER, FLA.—The Maddox Foundry & Machine Co., incorporated with $25,000 capital stock, will build and equip complete phosphate plants in addition to other supplies and machinery. The company will manufacture centrifugal pumps for hydraulic mining. H. Maddox is Pres.; C. C. Voyle, Vice-Pres.; E. E. Voyle, Secy., and P. Maddox, Treas.

JACKSONVILLE, FLA.—The Upchurch Lumber Co. is proceeding with erection of proposed sawmill plant, investing approximately $100,000. About 40,000 yards of sand and clay have already been dredged from river bed for filling purposes; entire territory to be filled including about [illegible] ft. on river front; cost, about $9,000. Company will erect sawtooth lumber pier, 300 × [illegible] ft., to have depth of water on all sides of 24 ft. Main mill building, now practically completed, will be of frame, 66 × 196 ft.; planing mill, also nearing completion, frame, [illegible] × 120 ft., and equipped with two 100-HP. boilers; double dry kiln, concrete foundation for which has been completed, of white pressed brick, 40 × 120 ft.; slab pit of steel, with concrete foundation and water-cooling wall at bottom; boiler-rooms will contain four 150-HP. boilers; daily capacity to be 125,000 ft. Plans have been prepared by Miles Anderson. Company will erect 100 cottages for laborers and 50 residences for skilled operatives. John J. Upchurch is Pres.

HUNTSVILLE, ALA.—The Huntsville Wood-Fiber Plaster & Lime Co., incorporated with $25,000 capital stock, will begin at once erection of wood-fiber plaster factory, and later will establish commercial lime-kiln with daily capacity of 1,000 barrels. A. M. Booth is Pres.; E. M. Forbes, Memphis, Tenn., Vice-Pres.; James R. Stevens, Secy.-Treas., and A. G. Proctor, Gen. Mgr.

MERIDIAN, MISS.—New Orleans & Northeastern R. R. Co. will erect 32-stall roundhouse, with drop pits, etc.; outer circumference, 750 ft.; inside depth, 50 ft. Estimated cost, $100,000. C. Phillips is Master Mechanic. James C. Haugh, New Orleans, La., is Engr.

LOUISVILLE, KY.—Joseph M. Davis, Cincinnati, Ohio, and associates will establish sanitary metal couch factory in Louisville, investing at first about $15,000. Mr. Davis will be Mgr., with offices at 809 Nelson St., Louisville.

The Louisville Courier-Journal & Louisville Times Co., Bruce Haldeman, Pres., will expend about $150,000 in reconstruction of building recently burned; cost of machinery to be installed about $175,000. John B. Hutchings is Arch.

COLUMBUS, OHIO.—The Buckeye Pump & Mfg. Co., of this city, which recently secured site on West Broad St., will soon begin erection of one-story brick plant.

COLUMBIANA, OHIO.—The Columbiana Foundry Co., of this city, will build plant for manufacture of gray iron castings under 10 tons in weight. R. H. Mills will be Supt.

INDIANAPOLIS, IND.—A. VONSPECKLESON, of this city, has been awarded contract to erect 2-story brick boiler-house at the St. Agnes Academy, corner 14th and Meridian Sts.

LAFAYETTE, IND.—The contract to put in the cement work and foundation for the experiment station at Purdue University has been awarded to W. F. STILLWELL, of this city. The contract for the construction of the building is to be let this fall. Estimated cost, $100,000.

ELKHART, IND.—The Sterling Hudson Whip Co. has ordered plans prepared for erecting factory and a number of tenements in this city. The factory is to be three stories, 60 × 300 ft.

The Shoemaker Automobile Co., of Freeport, Ill., will establish and equip an automobile factory on the corner of North Main and Simonton Sts. Dr. C. M. Eisenbeiss is interested.

LOGANSPORT, IND.—Bids will soon be asked by the Logansport Industrial Association for constructing radiator factory.

CRAWFORDSVILLE, IND.—Smith & Duckworth have ordered plans prepared for erection of 2-story brick and concrete planing mill, 80 × 130 ft.

EVANSVILLE, IND.—The Schelosky Table Mfg. Co., recently incorporated with capital of $40,000, is planning to erect extensive additions to its plant at Harriett and Virginia Sts. New machinery will also be installed. Moritz Adolph is Chn. Bd. Directors.

CARBONDALE, ILL.—Bids are being received by the Carbondale Milling Co., H. C. Curtis, Mgr., for erecting 3-story flour mill and elevator. Estimated cost, $30,000.

CHICAGO, ILL.—Oscar Heineman, silk manufacturer, and Paul Gerhardt, Arch., 109 Randolph St., have plans for a textile manufacturing plant. Mr. Heineman's factory is now located in the Occidental Bldg., Market St. He has bought the block bounded by Armitage, Fairfield and Washtenaw Aves., on which he will erect a 3-story building covering the entire tract, at a cost of $135,000. In this there will be installed textile machinery, driven by electricity.

It is reported that a contract has been awarded to the VILTER MFG. CO., Monadnock Block, by the Illinois Steel Co. for a refrigerating plant for its South Chicago plant. The refrigerating machine will have a capacity equal to the melting of 1,100 tons of ice per day. This refrigeration will be used to dry the air for the blast furnaces. The equipment will include four cross-compound condensing Corliss engines, each engine driving two double-acting ammonia compressors. The steam cylinders will be 24-in. and 46 × 36-in. stroke, and the ammonia compressors 18 × 36-in. There will

be furnished 100 coils of double pipe ammonia condenser and 80 coils of double pipe brine cooler and the necessary oil traps and other machinery. The plant will cost $115,000.

CHICAGO HEIGHTS, ILL.—A varnish factory will be built at Chicago Heights by the Standard Varnish Works, 2620 Armour Ave., Chicago. The buildings will cover about twelve acres of ground, and may be extended so that 17 acres will be occupied. The company will invest about $300,000.

MILWAUKEE, WIS.—We have been officially informed that the ENGINEERING CONTRACTING CO., Baltimore, has secured contract to erect a 2-story storage and bottling plant, 125 × 155 ft., to cost $36,000; equipment, $15,000. Building will be constructed of iron, brick and concrete, and will be owned by the Joseph Schlitz Brewing Co. Kirchhoff & Rose, 201 Grand Ave., Milwaukee, and Parker, Thomas & Rice, Union Trust Bldg., Baltimore, are Archs.

We are officially advised that the F. LUCGMAN CO., of Milwaukee, has general contract to construct a 6-story steel and mill construction tannery addition, to be 65 × 140 ft. The building will be erected at 975 North Water St. for A. F. Gallun & Sons. H. C. Koch & Son, Wells Bldg., Milwaukee, are Archs.

WICHITA, KAN.—A 4-story planing mill and sash and door plant, 60 × 120 ft., will be built by the Rock Island Lumber & Coal Co., to cost $50,000. Thomas Arnold, Mgr.

ST. LOUIS, MO.—Acme Tool & Truck Co., F. C. Koehler, Mgr., will erect factory buildings, fireproof, brick, iron and steel, with composition roofing, to cost $250,000. Plans have been prepared by William H. Gruen, Chemical Bldg.

G. T. Norton, Arch., 13th and Cherokee Sts., is preparing plans for a boiler-house, 100 × 140 ft., 80 ft. high, on Cherokee St., for the William J. Lemp Brewing Co., 13th and Cherokee Sts. Construction will be of brick, stone and terra cotta, architectural and structural iron work. Cost, $200,000.

FORT SMITH, ARK.—The Southwestern Chair Co., R. N. Dow, Pres., has awarded contract for erection of proposed factory buildings according to plans by F. M. BLAIDSDELL. Foundation of main building, which will be of brick, three stories high, 178 × 64 ft., is about completed. Other structures include warehouse, 146 × 47 ft.; power-house, dry kiln, etc.

CARROLLTON, TEX.—The Independent Press Brick & Tile Co., recently incorporated, will erect and equip buildings at cost of about $95,000. H. Haigh, Catskill, N. Y., is Arch. The plant will have daily capacity of 100,000 bricks and hollow tile. W. H. Moser is Pres.; Geo. B. Dobson, Galveston, Tex., Vice-Pres.; Joseph F. Kehoe, 412 and 413 Juanita Bldg., Dallas, Tex., Secy.

SEATTLE, WASH.—The Ehrlich-Harrison Co., Connecticut St., will erect a hardwood mill, to cost $500,000.

RAYMOND, WASH.—Work will be started at once on the foundation for a shingle mill be be built on a site between the Creech Bros. Lumber Co.'s sawmill and the old Turney-Martin shingle mill by A. S. Coats and Thomas Larkin, of Aberdeen, Wash. A pile-driver will begin driving piles for the dock and mill foundation at once. The mill will be equipped with four up-rights and one hand machine. It will have a daily cutting capacity of 250,000 shingles to begin with.

SAN DIEGO, CAL.—Hanson W. Carter, of Syracuse, N. Y., will erect a woolen mill plant here, it is stated, to cost about $500,000.

CONCORD, CAL.—We are officially advised that the WILLIAM B. SCAIFE & SONS CO., 211 First Ave., Pittsburg, Pa., have been awarded the contract for furnishing the structural steel work and steel storage bins for the new plant of the Henry Cowell Lime & Cement Co., at Concord, Cal. Eleven buildings will be required, involving about 2,500 tons of structural steel.

LONDON, ONT.—JOHN HAYMAN, of this city, has the contract for building the addition to the Grand Trunk Ry. shops here. Cost, $51,000. W. D. Robb, Montreal, Que., is Superv. of Motive Power.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

RIPRAP WALL.—Toledo, Ohio.—Bids are asked by the County Auditor until 10 a. m., Oct. 7, for constructing riprap stone wall.

TRUNK LOCKERS.—Washington, D. C.—Bids are asked by Maj. M. Gray Zalinski, Q. M., U. S. A., until Oct. 19 for furnishing 12,000 trunk lockers.

*HYDRAULIC DREDGE.—Charleston, S. C.—Bids are asked until noon, Oct. 25, by Capt. E. R. Stuart, Corps Engrs., U. S. A., for constructing hydraulic dredge.

LEVEE.—Clinton, Iowa.—The Meridocia Drainage and Levee District has made arrangements to double the pumping capacity in the levee section of the district. Estimated cost, $30,000.

FLAGSTAFF.—Ft. Jackson (Ft. St. Philip post-office), La.—Bids are asked by Capt. Arthur Cranston, Q. M., U. S. A., New Orleans, until Oct. 7, for erecting 75-ft. iron flagstaff at Ft. Jackson.

RETAINING WALL.—New York, N. Y.—Bids are asked by the Department of Parks, Samuel Parsons, Jr., Pres., until 3 p. m., Oct. 10, for constructing retaining wall on Spuyten Duyvil Parkway.

ELEVATOR.—Syracuse, N. Y.—The only bid recently received by the Supervising Architect, Washington, D. C., for installing elevator in the U. S. post-office at Syracuse, was submitted by the Otis Elevator Co., 17 Battery Pl., New York, for $7,980.

SEA WALL.—Ashtabula, Ohio.—The Lake Shore & Michigan Southern Ry. Co. will construct sea wall 2,000 ft. long in connection with the lake front improvements. S. Rockwell, Cleveland, is Ch. Engr.

*DREDGE AND SNAGBOAT.—New Orleans, La.—Bids are asked by E. H. Ruffner, Col. Engrs., until Nov. 20, for constructing and delivering one wooden hull combined hydraulic dredge and snagboat.

HAULING SAND.—Akron, Ohio.—Bids are being received by E. McShaffrey & Son, 173 South Forge St., for hauling about 12,000 cu. yds. sand a distance of about 1½ miles, either by traction engines or otherwise.

QUAY WALL.—Bremerton, Wash.—The contract for construction of concrete quay wall at the Naval Station, Puget Sound, Wash., has been awarded to TIMOTHY RYAN, of Seattle, Wash., at $26,560.

ELEVATOR.—Sioux City, Iowa.—The Otis Elevator Co., 17 Battery Pl., New York, recently submitted bid of $5,200 to the Supervising Architect, Washington, D. C., for installing elevator in the post-office at Sioux City.

LEVEE.—Bradley, Ark.—All bids received Sept. 11 by W. H. Baker, Secy., Long Prairie Levee Board, for constructing and raising levee from Buncom Springs to Louisiana and Arkansas line, about 450,000 yds., have been rejected.

SUBWAY.—Boston, Mass.—Bids are asked by the Boston Transit Commission, B. Leighton Beal, Secy., until noon, Oct. 3, for constructing portion of westerly wall, roof and invert for enlargement of subway, Haymarket Sq.

*LOCKS AND DAMS, ETC.—Mobile, Ala.—Bids are asked by Maj. H. Jervey, Corps. Engrs., U. S. A., until 11 a. m., Nov. 25, for constructing locks and dams Nos. 14 and 15, Black Warrior River, Ala.; also for constructing lock tenders' houses.

*DUMP SCOWS, BARGES.—Louisville, Ky.—Bids are asked until noon, Oct. 21, by Capt. H. Burgess, Corps Engrs., U. S. A., for two dump scows.

*Bids are asked at the same date for two steel barges.

DREDGING.—Osterville, Mass.—The contract to widen the west bay cut at Osterville has been awarded to J. H. GIRRICH, 247 Atlantic Ave., Boston, for $9,510. Frank W. Hodgdon is Ch. Engr. Harbor and Lands Comrs., Boston.

FILLING IN.—Washington, D. C.—The District Commissioners have awarded contract for filling in the approaches of the Anacostia bridge, Washington, to the WARREN F. BRENIZER CO., Washington, D. C., at 30.5 cts. per cu. yd.

DOCK, ETC.—Fort William, Ont.—The Canadian Pacific Ry. Co. announces that it will build a 1,000,000-ton dock here, six freight sheds, a grain-cleaning elevator and other accommodations. W. Cross is Asst. to Vice-Pres., Winnipeg, Man.

PIER.—Buffalo, N. Y.—The following bids were received Sept. 5 for constructing pile pier at Jersey St.: Geo. Parks & Sons, 217 15th St., $8,853, including stone filling, $7,353 without stone filling; A. F. Chapman & Co., 822 Prudential Bldg., $13,700 including stone filling.

GRADING. — North Chicago, Ill. — The Bureau of Navigation, Navy Department, Washington, D. C., has awarded contract for grading at the Naval Training Station, North Chicago, Ill., to the EDWARD BROS. DREDGING CO., Sault Ste. Marie, Mich., the only bidder, at 81 cts. per cu. yd.

CEMENT.—Iola, Kan.—The Secretary of the Interior has awarded contract to the IOLA PORTLAND CEMENT CO., Iola, Kan., for furnishing 5,000 bbls. of Portland cement for use in connection with the Payette-Boise irrigation project, Ind., at $1.50 per bbl., f. o. b. cars Iola, Kan.

*BREAKWATER.—Bar Harbor, Me.—The following bids were received Sept. 10, by Maj. George A. Zinn, Corps Engrs., U. S. A., Portland, for construction of breakwater at Bar Harbor: Philip H. Doyen, South Portland, Me., $1.27 per ton; E. S. Belden & Sons, Hartford, Conn., $1.13; Sylvester I. Hill, Chebeague, Me., $1.23½.

TUNNEL.—New York, N. Y.—Bids are asked by John W. Brannan, Pres. Bd. Trustees, Bellevue and Allied Hospitals, until 3 p. m., Oct. 7, for constructing tunnel connecting the training school for women nurses with Pavilions A and B of the new Bellevue Hospital, situated under 26th St., east of First Ave., Boro. of Manhattan.

DREDGING.—Stamford, Conn.—The following bids were received Sept. 7 by Maj. Harry Taylor, Corps Engrs., U. S. A., New London, for dredging in Stamford Harbor, the estimated quantities being 187,500 cu. yds. dredging, 1,000 cu. yds. rock removal: Maritime Dredging Co., 23 cts. and $10, respectively; Atlantic Dredging Co., 27.7 cts. and $8.80, respectively.

SUPPLIES.—Washington, D. C.—Bids are asked by the Bureau of Supplies and Accounts, Navy Department, Washington, until Oct. 1 for furnishing and delivering at various navy yards miscellaneous supplies.

Bids are asked by the Bureau of Supplies and Accounts, Navy Department, Washington, until Oct. 8 for furnishing and delivering at various navy yards miscellaneous supplies.

TORPEDO BOAT DESTROYERS.—Washington, D. C.—The Secretary of the Navy, Washington, D. C., has awarded the following contracts for five torpedo boat destroyers, bids for which were received Sept. 3: BATH IRON WORKS, Bath, Me., two boats at $633,300 each; WILLIAM CRAMP & SONS SHIPBUILDING & ENGINE CO., Philadelphia, two boats at $570,000 each; NEW YORK SHIPBUILDING CO., Camden, N. J., one boat at $710,000.

GUN CARRIAGES.—Washington, D. C.—Bids were received as follows Sept. 20 by the Chief of Ordnance, War Dept., Washington, D. C., for furnishing two 12-in. disappearing gun carriages, l. f., model 1901: Midvale Steel Co., Philadelphia, $58,000 each, first delivered, 14 months; second, 16 months. Bethlehem Steel Co., South Bethlehem, Pa., $48,867, with lead counterweights; $42,631, with cast-iron counterweights; first delivered, 18 months; second, 20 months.

DREDGING.—Washington, D. C.—Bids were received as follows Sept. 18 by Spencer Casby, Maj., Engrs., U. S. A., Washington, D. C., for the following dredging in Virginia waterways: (a) Occoquan Creek, 100,000 cu. yds.; (b) Urbana Creek, 20,000 cu. yds.; Carter's Creek, 28,000 cu. yds.; (d) Mattaponi River, 10,000 cu. yds.: River & Harbor Dredging Co., Philadelphia, (a) 18.4 cts.; (b) and (c) 21.8 cts.; (d) 50 cts. Miner Engineering Co., Norfolk, Va., (a) 16 cts.; (b) 22 cts.; (c) 27 cts.; (d) 35 cts.

STEAMBOAT.—New York, N. Y.—The following bids were received Sept. 23 by the Department of Public Charities for labor and materials necessary to build and turn over to the Department of Public Charities, in perfect working order, a steamboat: James Tregarthen & Son, Foot of East Seventh St., $72,450; Gas Engine & Power Co. and Chas. L. Seabury (Consolidated), Morris Heights, N. Y., $78,500; Crescent Engineering Co., $70,240; Frank A. Verdon Co., Foot Elm St., West New Brighton, Staten Island, $67,798; J. W. Sullivan, $77,500.

BREAKWATER.—Cleveland, Ohio. — The following bids were received Sept. 10 by Lieut.-Col. C. McD. Townsend, Corps Engrs., U. S. A., for extension of east breakwater at Cleveland Harbor—(a) 75,000 tons large placed stones, per ton; (b) 750,000 tons quarry run stone, per ton; (c) total: Graves & Stephens, Cleveland, (a) $1.75, (b) $1.29, (c) $1,098,750; Great Lakes Dredge & Dock Co., Chicago, Ill., (a) $1.53, (b) $1.80, (c) $1,464,750; Sea Coast Construction Co., New York, (a) 94 cts., (b) 94 cts., (c) $775,500; The Hunkin Bros. Construction Co., Cleveland, (a) $2.50, (b) $1.99, (c) $1,680,000.

SUPPLIES, ETC.—Washington, D. C.—Under circular 386, miscellaneous supplies and material bids were received Sept. 3 as follows: Atlas Portland Cement Co., 30 Broad St., New York, class 43, $41,100; D. L. GILLESPIE & CO., Pittsburg, Pa., class 46, $49,925; 47, $154,000; 48, $26,175.68; 54, $675; total of all classes, $230,776. Bidder agreed to offer $5,000 less if awarded all classes, which was accepted by the commission and the contract awarded at $225,776. No award has yet been made on classes 1, 2, 4, 5, 6, 7, 8, 11, 15, 24 (item 29), 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 50, 51, 52 and 53.

*WALLS, DREDGING.—Gardiner, Me.—The following bids were received Sept. 19 by Maj. Geo. A. Zinn, Corps Engrs., U. S. A., Portland, Me., for (A) building training walls and (B) dredging in Kennebec River, below Gardiner: (A) Philip H. Doyen, Portland Me., $1.09 per ton for stone training walls, $12.50 per cu. yd. for masonry beacons; Rowe Brothers Co., Richmond, Me., 88 cts. and $6.50 for same items, respectively. (B) Simon J. Donovan, Boston, Mass., 49½ cts. per cu. yd.; Eastern Dredging Co., Boston, Mass., 35½ cts. per cu. yd. for group 1; 41½ cts. for groups 2 and 3; 90 cts. for group 4; 44½ cts. for group 5.

DOCKS.—Salem, Mass.—The Philadelphia & Reading Coal & Iron Co., Thomas M. Richards, First Vice-Pres., and W. J. Richards, Second Vice-Pres., has purchased 44 acres of land on Salem Bay with an ocean frontage of over 2,000 ft. upon which the company will erect anthracite coal shipping depot. Docks and wharves will be constructed, and preliminary plans have been prepared, and it is hoped to get the work of construction under way this fall. For the present it is expected to erect a plant with about 75,000 tons' capacity, but the plans will be so arranged as to permit of extensions as the exigencies of the company's business will require. Estimated cost, $500,000.

LUMBER.—Rock Island, Ill.—The following bids were received Sept. 10 at Rock Island by Maj. C. S. Richie, Corps Engrs., for furnishing and delivering f. o. b. cars 2,624,616 ft. B. M. fir lumber: Allen & Nelson Mill Co., Seattle, Wash., $37,123; H. B. Waite Lumber Co., Minneapolis, Minn., $50,308,; Lumber Manufacturers' Agency, Centralia, Wash., $46,269; The Sound Lumber Co., Little Rock, Wash. (for 1,262,371 ft.), $20,795; Union Lumber Co., Tacoma, Wash., $59,054; Great Western Lumber & Timber Co., Aberdeen, Wash., $42,335; Foster Lumber Company, Tacoma, Wash. (for 2,615,869 ft), $51,308; Arthur Gamwell, Seattle, Wash., $52,497; Carstens & Earles, Inc., Seattle, Wash., $44,417; Tacoma Mill Co., Tacoma, Wash., $46,260; The Sound Lumber Co., Seattle, Wash., $48,555; C. M. McCoy, Minneapolis, Minn., $51,394; St. Paul & Tacoma Lumber Co., Tacoma, Wash., $62,991; Somerville Bros., Napavine, Wash., $54,367.

*CONCRETE DAMS.—Cincinnati, Ohio.—The following bids were received Sept. 11 by Lieut.-Col. Wm. T. Rossell, Corps Engrs., U. S. A., Cincinnati, for constructing dams of concrete, etc., at head of (A) Marietta Island and head of (B) Brown's Island, Ohio River, and for (C) constructing dike and shore protection in Ohio River near head of Grand Chain, Ill.: (A) Kronlich & Shelton, Erie, Pa., $53,205; and John C. Thomas, Bellaire, Ohio, $84,020. The detailed bid of the lowest bidder, Kronlich & Shelton, is as follows: 10,000 cu. yds. excav., 95 cts.; 198 piles, $22; 15,000 lbs. iron tie rods, etc., 8 cts.; 1,200 cu. yds. earth filling, 30 cts.; 3,700 cu. yds. stone, $2.45; 4,000 cu. yds. stone, $1.95; 2,680 cu. yds. concrete, $7.77; 40 bbls. extra cement, $2.50.

(B) Pennsylvania Contracting Co., Pittsburg, Pa., 165 cu. yds. excav. ledge rock, $3; 5,400 cu. yds. excav. loose material, 70 cts.; 90 lin. ft. anchor bolt holes, 90 cts.; 110 piles, $16; 8,600 lbs. iron tie rods, etc., 8 cts.; 2,000 cu. yds. stone, $4; 2,100 cu. yds. stone, $4; earth filling (if required), 85 cts. 2,625 cu. yds. concrete, $11.76; 40 bbls. extra cement, $2.25; total, $54,172.

(C) Oscar F. Barrett, Cincinnati, 500 cu. yds. stone, $3.80; 9,500 cu. yds. stone, $3; total, $30,250.

U. S. POSSESSIONS AND CUBA.

(* *denotes that this work is advertised in Engineering News.*)

DREDGING.—Porto Rico.—The STANDARD DREDGING CO., Baltimore, has been awarded contract to deepen the approaches to and the harbor of San Juan, at $803,000. Charles W. Eaton is Pres. of the Standard Dredging Co.

EXPLOSIVES. — Panama. — Requisitions have been received from the Isthmus by Col. H. F. Hodges, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., calling for 1,000,000 lbs. 45% saltpetre dynamite, 550,000 lbs. 60% saltpetre dynamite, 50,000 detonators and 45,000 electric exploders.

*CAPITOL BUILDING.—Porto Rico.—Notices of intention to enter competition for supplying plans for a building to be erected at San Juan, P. R., to be known as the Capitol of Porto Rico, will be received by L. H. Grahame, Comr. of the Interior, San Juan, until Nov. 1. The building is to provide accommodations for the Executive Council, the House of Delegates and the Supreme Court of Porto Rico, and is not to cost more than $250,000. Drawings intended for competition are to be delivered to the Commissioner of the Interior at San Juan on or before noon, Feb. 1. The prizes offered in the competition are: First, $5,000; second, $2,000; third, $1,500. A list of requirements called for in the competition may be seen at the office of Engineering News, New York. W. F. Willoughby is Chn. of Com. on Selection of Site and Approval of Plans.

ENGINEERING SUPPLIES. — Panama. — Bids are asked until 10.30 a. m., Oct. 14, at the office of Col. H. F. Hodges, Gen. Purchasing Officer, Isthmian Canal Commission, Washington, D. C., for the following engineering supplies under Circular No. 392: Three complete automatic fire alarm systems, complete, including switchboards, gongs and indicators, recording sets, repeaters, boxes and key guards, and electrical equipment; marine electric fixtures (for dredge); 9,200 ft. 2½-in. fire hose, shut-off nozzles, magnetic release trips, double harness, leather striking devices, firemen's helmets (for fire department equipment); 1,200,000 lbs. 45% nitroglycerin dynamite, 550,000 lbs. 60% nitroglycerin dynamite, 1,000 blasting caps, 50,000 detonators, 45,000 electric exploders, blasting batteries and wire; four hoisting engines, 7-in. diameter cylinder, six hoisting engines, 8½-in. diameter cylinder; one tool-room engine lathe, one head planer and joiner, one swing cut-off saw; tool steel, steel plates, round iron, sheet iron, sheet zinc, sheet copper, sheet brass, rivets (iron and copper), stove bolts, dump chains; 22,000 ft. extra strong w.-i. pipe; hook bolts, washers, gaskets, packing, asbestos packing and tape, rubber and wire-woven flexible sleeves (for dredge), canvas, 100,000 lbs. cotton waste, kerosene, oils, wrenches, ratchet drills, anvils, swage blocks, blacksmiths' mandrels, tire measuring wheels, crucibles, lamps; lumber, as follows: 7,160 piles, 35 to 70 ft.; 1,640 bridge ties, 220 guard rails, 6,000 stringers, 1,100 caps.

FOREIGN CONTRACTS.

(To insure prompt attention, letters upon consular business should be addressed to the American Consul at ———, ———. Such letters are opened and attended to by the person that may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. If, in the meantime, he should have gone out of office the matter may wholly escape attention.)

RAILWAY.—Portugal.—Plans have been approved for construction of the Tejo and Mondeio railway systems.

STEEL RAILS.—Belgium.—Bids are asked until Sept. 29, by the Administration des Voies et Travaux, Brussels, for supply of 34,000 tons of Vignole steel rails.

STEAM LAUNCHES.—Egypt.—Bids are asked at the office of the Inspector of Delta Barrage Circle until 10 a. m., Oct. 17, for the supply of two steam launches.

ELECTRIC LIGHTS.—Belgium.—Bids are asked until Oct. 17, by the Burgermaster, Antwerp, at the Hotel de Ville, for installation of electric lights in the Salle de Fetes recently erected in the Place de Meir, Antwerp.

DRAINAGE.—Spain.—Bids are asked by the Ayuntamiento Constitucional de Barcelona until Oct. 8 for construction of new and improvement of the old drainage of a certain district in Barcelona. Estimated cost, about $20,000.

RAILWAY.—Brazil.—A proposition has been laid before the State Congress for construction of a railway from Juiz de Fora to meet the Sapucahy Railway at Bom Jardim, passing through San Francisco de Paula and Lima Duarte.

BOTTLE FACTORY.—Brazil.—A company is to be formed at Porto Alegre, Rio Grande do Sul, with a capital of $500,000, for manufacture of bottles for wine and beer. It is expected that the company will be able to produce 2,000,000 bottles a year.

RAILWAY, RETAINING WALL, ETC.—Argentina.—Authority has been granted to the Buenos Ayres-Pacific Ry. Co. to construct a river wall on the La Plata, and a high level railway through Buenos Ayres, with a station in Maypu St., together with the necessary bridges.

RAILWAYS, ETC.—Spain.—The following projects are proposed at Palma: Hydraulic works for the water supply of the town. There is no regular river water supply, but there are springs in Majorca Island. The works include the construction of a rain water reservoir; construction of an electric tramway system in the town and suburbs; the construction of a railway from Palma to Lluchmayor.

MACHINERY.—Egypt.—Bids are asked by the Egyptian Prisons Department until noon, Oct. 12, for supply and erection of machinery, etc., required at the new reformatory, Ghizeh. Plans and specifications can be seen at the office of the Director of Buildings, Prisons Department, Cairo.

BRIDGE.—Egypt.—Bids are asked at the office of the Asyut Barrage Circle until 10 a. m., Nov. 1, for a road-bridge over the Ibrahimieh Canal at Nazali Ganub. Contractors should send their own designs and tender in a lump sum to the Inspector of Irrigation, Asyut Barrage Circle, Asyut. The work is to be completed by July 1, 1908. The specifications and plan may be inspected at the office of the Inspector General of Irrigation, Upper Egypt, Cairo.

HOTELS.—Brazil.—It is proposed by government authorities to build two hotels in Rio de Janeiro with room for 500 guests each and one each in Porto Alegra, S. Paulo, Bello Horizonte, Bahia, Pernambuco and Pará for 200 guests each at least. In Curityba, Florianopolis, Victoria, Alagoas (Maceio), Maranhao and Manáos one hotel each for 100 guests; in Rio Grande, Santos, Paranaguá one each for 50 guests and one each for the same number in Petropolis, Juiz de Fora, Nictheroy and other capitals of the Union.

CIVIL SERVICE EXAMINATIONS.

OIL SURVEYOR.—New York, N. Y.—An examination will be held by the Municipal Civil Service Commission, 299 Broadway, New York, at 10 a. m., Oct. 30, for the position of Oil Surveyor, at a salary of $1,500 a year. Age limit, 21 years. Applications will be received until 4 p. m., Oct. 9. Frank A. Spencer is Secy.

GAS INSPECTOR.—New York, N. Y.—An examination is announced by the Municipal Civil Service Commission, 299 Broadway, to be held at 10 a. m., Oct. 28, for the position of Gas Inspector, Dept. of Water Supply, Gas and Electricity, at a salary of $1,200 a year. Applications will be received until 4 p. m., Oct. 7. Age limit, 21 years. Frank A. Spencer is Secy.

SANITARY INSPECTOR.—New York, N. Y.—The Municipal Civil Service Commission, 299 Broadway, New York, will hold an examination on Oct. 25, at 10 a. m., for the position of Lay Sanitary Inspector (male), Dept. of Health and Tenement House Dept. Applications will be received until 4 p. m., Oct. 4. Salary, $1,200 a year. Age limit, 21 years. Frank Spencer is Secy.

STEAM ENGINEER.—Salt Lake City, Utah.—An examination will be held by the U. S. Civil Service Commission on Oct. 23 to secure eligibles from which to make certification to fill a vacancy in the position of Engineer, at $900 a year, in the U. S. courthouse and post-office building, Salt Lake City, Utah, and similar vacancies as they may occur in the Custodian Service in any city in the United States. Age limit, 18 to 55 years. Application Form 1052.

ARCHITECTURAL DRAFTSMAN. — New York, N. Y.—On Oct. 23-24 the U. S. Civil Service Commission will hold an examination to secure eligibles from which to make certification to fill a vacancy in the position of Draftsman (male), qualified as inspector of construction, at $6 a day when actually employed, in the Immigration Service, Ellis Island, N. Y., and vacancies as they may occur in any branch of the service requiring similar qualifications. Applicants for this position must have had experience in the supervision of buildings under construction. Persons who have not had such experience will not be admitted to the examination. Age limit, 20 years or over. Application Form 1312.

LITHOGRAPHIC MAP ENGRAVER.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Oct. 19 to secure eligibles from which to make certification to fill a vacancy in the position of Lithographic Map Engraver, at $3 a day, in the Geological Survey, and vacancies as they may occur in any branch of the service requiring similar qualifications. No educational test will be given, and it will not be necessary for applicants to appear at any place for examination. They will be rated upon the character and degree of excellence of the samples of engraving submitted with their applications. Their experience and the nature of their previous employment will also be considered. Age limit, 20 years or over. Application Form 1093.

INDUSTRIAL NOTES.

THE DRAKE STANDARD MACHINE WORKS, 298 Jackson Boulevard, Chicago, reports that it has an order for concrete mixers with raw-material conveyors for the track reconstruction work on the Chicago City Ry.

TRADE PUBLICATIONS.

ROCK CRUSHERS.—Smith & Post Co., Milwaukee, Wis. Paper; 6½ × 4¾ ins.; pp. 8; illustrated.

A portable machine is illustrated, having a Symons gyratory crusher and an elevator; another portable machine has the Symons jaw crusher.

PROTECTIVE PATENTS.—G. Howlett Davis, Patent Attorney, Washington, D. C. 4½ × 6½ ins.; pp. 63.

This booklet contains information emphasizing the difference between patents which protect the inventor and those which are so loosely and carelessly drawn as to invite infringers to profit by the inventor's ideas. There is no doubt that this information is greatly needed. It is astonishing how general the ignorance in this subject and how frequently patents are issued which are so limited in their claims as to be valueless, so far as securing actual protection to those who exploit the invention is concerned.

STEAM ROAD ROLLERS.—J. I. Case Threshing Machine Co., Racine, Wis. Paper; 9 × 12 ins.; pp. 16; illustrated.

The boiler and machinery of the Case roller are described and illustrated. There are a number of testimonials, and interesting views of the machines at work.

CONCRETE MIXERS.—A. F. Nims, Rochester, N. Y. 9¼ × 5¾ ins.; pp. 25; illustrated.

This pamphlet gives a priced and illustrated list of the Nims concrete mixer, together with a unique attachment for measuring the aggregate to be put in the mix.

CAST-IRON CULVERTS.—Beach Mfg. Co., Charlotte, Mich. Paper; 3½ × 7½ ins.; pp. 16; illustrated.

These culverts are made in sections 3 ft. long, each section consisting of three interlocking parts to form the invert and sides. Bridge floors, and road scrapers and plows are also listed.

PORTABLE HOUSES.—Phenix Mfg. Co., Milwaukee, Wis. Paper; 7¾ × 9 ins.; pp. 8; illustrated.

These structures are adapted for engineers' and contractors' camps, mining and military camps, voting cabins, etc., as well as for pleasure use as summer cottages. Camp furniture is also included.

CONCRETE MIXER.—Koehring Machine Co., Milwaukee, Wis. Paper; 6 × 9¼ ins.; pp. 8; illustrated.

The Koehring mixer is of the combination drum and trough type. The sand and cement are mixed dry in the drum, and the water and stone are added in the trough, in which runs a shaft fitted with paddles.

ROAD DRAG.—Beach Mfg. Co., Charlotte, Mich. Paper; circular; 8¼ × 9½ ins.; illustrated.

Road drags for leveling and surfacing earth roads are usually made of logs or planks, but the Beach drag has three steel angles connected by a top plate riveted to the horizontal flange.

BLAST HOLE DRILLS AND LOADERS.—The Cyclone Drill Co., Orrville, Ohio. 9 × 12½ ins.; pp. 5; and 9 × 12½ ins.; pp 6. Two catalogues. Illustrated.

The title above very well describes the contents; an illustrated list of the various tools and machines made by the company to facilitate rock quarrying and blasting.

PORTABLE ASPHALT PLANT.—The Guelich Portable Asphalt Plant Co., Detroit, Mich 5 × 8 ins; pp. 6; illustrated.

In many instances the smaller towns and cities desire to lay asphalt pavements where it is impracticable to set up a large plant for preparing the asphalt. Such a plant as the one here described should be of value in these cases.

CONCRETE MIXER AND BLOCK MACHINES.—Edmondson Concrete Machinery Co., South Bend, Ind. Paper; 3½ × 6½ ins.; pp. 12; illustrated.

The mixer is a cylindrical drum, with axis vertical, and is tilted to dump its load. It is a small machine intended specially for use in connection with the manufacture of concrete blocks. Concrete block and brick making machines are also included.

SCRAPER-BUCKET EXCAVATORS.—Page & Shnable, 1002 Security Building, Chicago. Paper; 9½ × 6 ins.; pp. 37; illustrated.

The bucket is suspended from and handled by a stiff-leg derrick, and cuts towards the machine. Line drawings show the arrangement of the operating cables, and a number of half-tone engravings show the machine excavating loose rock, wet gravel, earth, etc., on canals, drainage ditches and railway construction.

WATER-TUBE BOILERS.—D. D. Flanner Boiler Co., Toledo, Ohio. Paper; 6 × 9 ins.; pp. 16; illustrated.

In this catalog the Park water-tube boiler is briefly described. The most peculiar features consist of divided headers and the use of four steam delivery tubes from each header to the steam drum, which is of the cross type. Each header unit, with the accompanying tubes, is suspended at the forward end, allowing for considerable difference in heating and expansion in various parts of the boiler.

STEAM ENGINES.—Wisconsin Engine Co., Corliss, Wis. Paper; 10 × 6¾ ins.; pp. 57; illustrated.

This is an illustrated descriptive catalogue of the company's high-duty Corliss engines (simple, cross-compound and tandem-compound) for operating electric generators, rolling-mills, air-compressors and other heavy machinery. The special features are described and illustrated separately. Tables of sizes and dimensions are given.

"MINE AND QUARRY."—The Sullivan Machinery Co., Ry. Exch. Bldg., Chicago. Vol. II., No. 2, August, 1907.

Six articles of interest make up this issue, as follows: Air Power in the Construction of the McCall Ferry Dam; Soapstone Quarrying; Lead and Zinc District of the Southwest; Hudson River Crossing of the New York Water Supply Aqueduct; Straight-Line Corliss Air Compressor, and Coal Mining in Indian Territory.

WATER STILLS AND FILTERS.—Jewell Water Improvement Co., 120 W. Jackson Boulevard, Chicago. Paper; 5¾ × 8¾ ins.; pp. 8; also circulars 9 × 11¾ ins.; illustrated.

The pamphlet describes purifying apparatus for distilled water, the stills and their operation being described in detail. The apparatus is intended for the use of hospitals, manufacturing chemists and industries requiring distilled water, as well as to supply drinking water in factories and residences. The circulars relate to the stills and also to sand filters of the pressure and gravity types.

REINFORCED CONCRETE BRIDGES.—Concrete Steel Engineering Co., New York. 9½ × 6 ins.; pp. 96; illustrated.

Mr. Edwin Thacher is the oldest and perhaps the best known designer of the reinforced concrete arch. This pamphlet, issued by the firm of which he is senior member, gives illustrated descriptions of the many arch bridges built under his direction in the last 15 years. The number of examples shown are indicative, not only of the beauty that can be obtained in this work, but also of the wide distribution and wonderful growth of this new type of construction.

GASOLINE AND KEROSENE TRACTION ENGINES.—Hart-Parr Co., Charles City, Iowa. Paper; 9 × 6 ins.; pp. 40; illustrated.

These machines have the gasoline engine, gearing, etc., mounted on an I-beam underframe, and are designed for general hauling and agricultural work. The machinery is described in detail, and the illustrations show the engines engaged in hauling plows and road graders and driving threshers, etc. Stationary and horizontal engines are also included, and a separate pamphlet contains a number of testimonials.

AIR COMPRESSORS AND PNEUMATIC TOOLS.—The Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill. Catalogs 23 and 24. Paper; 6 × 9 ins.; pp. 106 each; illustrated.

Catalog 23 describes the mechanical construction and special features of cylinders, crossheads, valves and governors, and gives tabulated dimensions of new and old, simple and Corliss types of Franklin air compressors. There is also considerable matter on installation, adjustment and care of compressors. The following tables of general interest are appended: Cu. ft. air necessary to run one rock drill of various sizes at various pressures; capacity of compressors necessary to operate 1 to 70 rock drills at altitudes from sea level to 15,000 ft.; capacity lost by air compressors working at different altitudes; relative volumes of compressed air at various pressures; pressure lost in transmitting air through pipes; contents of cylinders in cu. ft. for each ft. of length; table of carrying capacities of branch pipes; volume of free air flowing through straight pipes and through orifices from a receiver into atmosphere.

Catalog 24 is filled with miscellaneous data on pneumatic hammers, drills, riveters, sand-rammers and sifters, small hoists, winches, trolleys, cranes, and elevators, with their innumerable smaller accessories.

ELECTRICAL APPARATUS.—The General Electric Co., Schenectady, N. Y. Bulletin. Paper; 8 × 10¼ ins.; illustrated.

Bulletin No. 4512. A newly designed line of fuse boxes is herein described. These are for use in manholes under trying conditions. Two general types are made: one having cable outlets at the sides, the other having the outlets at the bottom.

Bulletin No. 4514. The Thomson inclined-coil portable indicating instruments, described in this pamphlet, were primarily designed for use on alternating current circuits, but may be used with direct current by making reversed readings and taking the mean as the true indication. The voltmeters and wattmeters are constructed on the dynamometer principle. The ammeters are built as the magnetic vane instruments.

Bulletin No. 4518, on "Electric Hoists," describes the numerous applications of electric hoisting developed by the General Electric Co.

Bulletin No. 4521. The three reading pages of this bulletin treat floor outlet boxes intended for use in places where ceiling or wall outlets would be undesirable. The body of the box is of seamless steel and is provided with an adjustable collar of the same material. This collar is threaded into the box-body, allowing 1-in. adjustment. The floor plate itself is of heavy brass and is fastened to the steel collar by screws. Leaded joints and gaskets made the fixture water-tight.

ELECTRIC HEATING AND COOKING DEVICES.—The General Electric Co., Schenectady, N. Y. Bulletin 4523. Paper; 8 × 10½ ins.; pp. 6; illustrated.

This pamphlet is bound with an attractive cover and contains profusely illustrated descriptions of radiators, water heaters, ovens, broilers, grids, kettles, irons, etc., of such size and nature as seem particularly adapted for use on shipboard where the lighting plant usually has excess capacity for an intermittent load of this character. Two distinct forms of heating elements are used in all such apparatus made by this company, known as Cartridge and Quartz-Enamel types. The Cartridge units consist of a thin tape of resistance metal wound edgewise, insulated with a fireproof cement and inserted in a mica-lined brass tube fitted with a cement plug, through which the leading in wires are brought. The Quartz-Enamel unit is made of resistance wire wound in a coil of small diameter, which coil itself is then coiled in a flat spiral with mica insulation between large convolutions.

Bulletin 4527, in 16 pages, describes the latest form of Thomson polyphase induction wattmeters. These are adapted for measuring energy furnished to any monocyclic, two or three-phase circuits irrespective of load conditions. The moving parts consist of two single-phase motor elements mounted on the same shaft. The wattmeters are made in three types—one for house service and two for switchboard use. This bulletin gives mechanical and electrical features, capacities, etc., and many connection diagrams.

SITUATIONS OPEN

WANTED—A young engineer who is a neat draftsman, capable of doing map work, and some experience as an instrumentman. State age, experience, education and salary expected. Address "ENGINEER," Ohio Oil Co., Marshall, Illinois. 13-1t

WANTED—A first-class quarryman for trap rock. Will employ on salary or percentage. Address "D. B. 13," Engineering News, New York. 13-1t

CEMENT SALESMAN, by a large Portland cement company. Man familiar with New York City trade. Address "E. B. 13," Engineering News, New York. 13-1t

FOR SALE

WANTED TO BUY OR RENT

A Steam Shovel for Trench Work

Weight not to be less than 15 tons and not over 26 tons, and dig to a depth of 10 ft., or will take scraper elevator not over 35 tons.

MOELLER BROTHERS,
Knierim, Iowa. 13-2t

SAVE THE MONEY OF THE TAXPAYERS

Old Machinery, Tools

and other material used by cities and counties are of value to contractors and engineers, and we suggest that you offer such material

FOR SALE

in the columns of ENGINEERING NEWS.

It is Costly to Store

machinery, tools and instruments that you are not using or going to use. The cheapest method to dispose of this kind of material is by advertising in a paper read by persons who require just what you have and that you do not use.

FOR SALE Advertising in Engineering News is $1.50 an inch.

PROPOSAL Advertising is $2.40 an inch.

Use its Pages

when you want to sell, and use it when you want proposals, thereby saving your municipality or county considerable money.

The Engineering News Pub. Co.
220 Broadway, New York

Suppl

CONSTRU
Plans
List
Rail
Electr
Light
Bridg
Build
Wate
Sewe
Stre
Manu
Misce
U. S.
Cont
READE
INDUS
TRADE
PROPO

C

PLANS

(* den

The f
(S.) ar
of The
220 Br
10- 5 *
10- 5
10- 7*C
10-23*
10-25*
11- 9
11-25*

LIG
10- 5
10- 5
10-15
10-17
11- 1
11- 8
11- 9
11-13

10- 5
10- 5
10-
10-
10-
10-
10-
10- 7
10- 8
10-
10-
10-
10-1
10-1
10-1
10-1
10-1
10-1
10-2
10-2
11-
11-

10-
10-
10-
10-